Phyt. 926 1/6

The Botanic Garden:

Consisting of

Highly finished Representations

OF HARDY

ORNAMENTAL FLOWERING

PLANTS,

CULTIVATED IN GREAT BRITAIN;

WITH

Their Classification, History, Culture,

AND

OTHER INTERESTING INFORMATION.

BY

B. MAUND, F.L.S.

Vol. I.

LONDON:

SIMPKIN AND MARSHALL, STATIONERS HALL COURT,

AND

SHERWOOD AND Cº. PATERNOSTER ROW.

Smith pinx.t et Watts flor. sculp.t

Fenner scripsit.

THE

BOTANIC GARDEN;

CONSISTING OF

HIGHLY FINISHED REPRESENTATIONS

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ORNAMENTAL FLOWERING PLANTS,

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WITH

THEIR NAMES, CLASSES, ORDERS, HISTORY, QUALITIES, CULTURE,
AND PHYSIOLOGICAL OBSERVATIONS.

BY

B. MAUND, F.L.S.

VOL. VI.

"Not a tree,
A plant, a leaf, a blossom, but contains
A folio volume. We may read and read,
And read again, and still find something new,
Something to please, and something to instruct."
HURDIS.

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PREFACE.

We meet our friends again as after a long absence; and although our monthly correspondence with each other has already told of discoveries abroad, of the beauties of the earth in all regions, and of the accession of floral wealth which has been daily made to our native land, still it is gratifying to review the prosperity of the interval occupied by a two-years' advance as it were from a former preface. Floral Riches it may be said have been heaped upon us; but it must not be dissembled that counterbalancing sacrifices have been made. The names of Cunningham, of Douglas, of Drummond, constitute a sad memorial of the efforts made to increase our botanical wealth. These men fell martyrs to their zeal, in collecting plants in unexplored lands; can it then be subject of wonder, that the objects for which they ventured so much should be viewed as estimable to all. We say ALL, for there are now, but here and there a few, who do not feel respect, if not love, for the beauties of the parterre.—"the nobility of the garden."

There is, indeed, overwhelming evidence of the spread of this taste. Public Gardens have arisen in all directions, and Private Collections of Plants vie with each other in extent, and in the rarity of their ornaments. If our feeble efforts have communicated but a single impulse to the breast of a single individual, towards this improved state of feeling, we have not wrought in vain, since the respect for, and the study of, the works of creation tend to make us wiser and happier, and lead us to the contemplation of the omniscient dispenser of the objects we admire.

These considerations, added to the increased and increasing encouragement which we have the gratification to acknowledge,

will stimulate us to further exertion, and the advantages which have lately presented themselves, through an extended connexion, place us in a position to promise additional interest in the Botanic Garden. The spirit of the times too, greatly assists the Engines of literature. We have railways herein as well as in travelling. It has been said by an ingenious French writer, that all that is permitted to us of intercourse in this transitory scene is merely to grasp our friends by the hand, then pass on, and meet no more till we have crossed the vast ocean that divides time from eternity. Happier is our lot, for by means of the Botanic Garden we become more than the hundred-handed Briareus, capable of holding communication with thousands of our friends at once, however distant or scattered their places of abode. Conscious of the responsibility thus attached to us, we aim at rendering the plants we, figure floral preceptors—the means of introducing to our distant correspondents principles and views, which whilst they render us happier here will be no unfit companions when we go hence, and are planted in the garden of "living fountains of waters".

Though not averse occasionally to adopt the sentiment of the poet, in its cheerful application, who advises us in our journey through life's garden to

"Gather the rose-buds while we may,
Old Time is still a-flying;
And that same flower which blooms to-day,
To-morrow may be dying;"

yet 'twere well to have respect to the moral so regularly and touchingly taught by the beautiful objects of which we treat, —to look on their renovation after lying in cold obstruction, and permit them to become our serious monitors, then take up one strain of nature's sweetest poetess.

"Bring flowers to the shrine where we kneel in prayer,
They are nature's offering; their place is there;
They speak of hope to the fainting heart;
With a voice of promise they come and part;
They sleep in death through the wintry hours;
They break forth in glory: bring flowers, bright flowers!"

MRS. HEMANS.

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PARDAN'THUS CHINEN'SIS.

CHINESE PARDANTHUS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
China.	18 inches.	July, Aug.	Perennial.	in 1759.

No. 481.

The word, Pardanthus, is derived from the Greek PARDOS, a leopard, and ANTHOS, a flower, indicative of its spotted appearance.

It must, sometimes, be matter of surprise to all persons who cultivate flowers, and this, now a days, means every body; that many long-known and even splendid plants, although not lost to the country, are almost wholly neglected. The Pardanthus Chinensis may be mentioned as an instance. The care which it demands cannot be advanced as a "because." Perhaps it is not admitted to the mind's presence-chamber, as Locke would say, having been known forty years ago. Our plants, as our costume, must not savour of antiquity! Be this as it may, the Pardanthus is highly beautiful; and unlike the majority of its order, continues long in gaiety.

If it be planted in a light and dry soil, having a dry subsoil, it will succeed perfectly; but if, of necessity, it must be grown in a situation that is moist, or the soil retentive, the roots should be taken up in autumn, potted, and protected in a cold frame, till April. It may be increased freely by division; and occasionally, it produces seed.

LI'NUM MONO'GYNUM.

ONE-STYLED FLAX.

Class.
PENTANDRIA.

Order.
PENTAGYNIA.

Natural Order.
LINEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
S. Europe.	18 inches.	July, Aug.	Perennial.	in 1831.

No. 482.

The Greek LINON, is, most probably, the root of our word Linum. By some authors it has been referred to the Celtic llinn, but with less appearance of truth. The word, monogynum, is applied to distinguish this species, in consequence of its usual growth with one style in lieu of five, which it may naturally be expected to bear, agreeably to its Linnean order.

This character, as far as we have observed, is constant, but Mr. Loudon, (Gard. Mag. v. 10, 356) says that in the London Horticultural Society's Garden, he observed it with five styles, which fact teaches us, he justly observes, that the specific epithet is not well applied to this plant.

This is a delightful species of Linum. It bears the character of luxuriance in its very habit, and its numerous delicately white flowers are particularly showy. We first met with it in the Birmingham Botanic Garden, where it proved to be quite hardy in a bed of sandy peat. It may be raised from seeds; or by cuttings, which should be taken from the young stems, and struck under glass. It does not admit of frequent division.

This genus is a most important one in domestic economy. The Linum usitatissimum, or common flax, from which linen cloth is prepared, is of very ancient culture. It has long been a matter of enquiry whether the "fine linen" mentioned in the scriptures was really what we now call linen, or whether it was cotton. The question seems at length determined. The Philosophical Magazine, November, 1834, contains an interesting paper from James Thomson, Esq. on the mummy cloth of Egypt; pieces of which have been demonstrated to be linen. Mr. Thomson says he obtained the assistance of Mr. Baur, whose microscopic drawings are so well known to the scientific world. He transmitted to Mr. Baur various fibres of cotton and linen, both manufactured, and in their raw state, as well as fibres of unravelled mummy cloth, and in a few days he received from him a letter, in which he pronounced every specimen of mummy cloth, subjected to his examination, to be linen.

The letter was accompanied by a beautiful drawing, (an engraving of which is in the Philosophical Magazine) exhibiting the fibres of both raw and unravelled cotton, as flattened cylinders, twisted like a corkscrew, whilst the fibres of various mummy cloths were straight and cylindrical.

The envelopes of a great number of mummies were subsequently examined, and all proved to be linen; and the distinction of the two substances is so perfect, that Mr. Baur says that with Ploessl's microscope he can ascertain whether cotton rags have been mixed with linen in any manufactured paper whatever.

TOURNEFOR'TIA HELIOTROPIOI'DES.

HELIOTROPE-LIKE TOURNEFORTIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
BORAGINEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Buenos Ayr.	2 feet.	May, Aug.	Perennial.	in 1829.

No. 483.

Joseph P. de Tournefort, in honour of whom this genus was named, was a French botanist of eminent talent. He was born in 1656; and his method of botanical classification was esteemed as far superior to any that had preceded it. He, however, was strenuously opposed to the sexes of plants. The farina, which we now know possesses important functions, he even conceived to be merely excrementitious. At this period, it should be noticed, a vague notion only of the functions of the parts of fructification existed. Botanists, up to the sixteenth century, had made no advance in knowledge on this subject, from the days of the ancient Greeks—Herodotus and Theophrastus. It remained for our own countryman, Grew, to enlighten the world on the subject of vegetable reproduction. He applied his attention and his microscope to the mysteries of vegetation, and exhibited to the world, its economy as connected with the functions of the parts of fructification. although he had no actual demonstration of the fact, he was fully convinced that the farina or pollen was not a useless product, but essential to the fertilization of the seeds.

Tournefort's classes were formed on the figure of the petals of flowers; hence he had bell-shaped, funnel-shaped, cross-shaped, lip-shaped, and others; several of which modern botanists find to be perfectly natural divisions. Linneus began life, as a botanist, on Tournefort's system; and although he discarded it in his artificial arrangement, much of it may be discovered in his fragments of a natural method. On Linneus's fragments, Jussieu built his more perfect orders; which, improved by modern science, constitute the natural method of classification, as now advocated by many eminent botanists.

The Tournefortia heliotropioides, in general habit and aspect, strongly resembles the Heliotropium Peruvianum, and its more recently-introduced congener, corymbosum; but it is devoid of fragrance, a quality which the Heliotropium Peruvianum, possesses in a degree, rarely equalled in the garden. Our present plant will prove to be very desirable to many of our readers; to those, we mean, who plant in masses. It produces abundance of free-growing succulent shoots, which being regularly spread on the ground, soon clothe it with rich verdure. Its flowers, individually, are not very showy, but the quantity produced, and the long-continued succession of them, make ample amends.

As this plant will not endure severe frosts, a good method of management is to put cuttings, in the beginning of August, into pots; perhaps half a dozen in each one, if of good size. Place these in the shade, under a frame, or hand-glass, till they have struck root. Afterwards, uncover them, and previous to frosts, place them in a cold frame, till April.

Bot. Mag. 3096.

GERA'NIUM ANGULA'TUM.

ANGULAR-STALKED CRANE'S BILL.

Class.
MONADELPHIA.

Order.
DECANDRIA.

Natural Order.
GERANIACEÆ.

Native of Europe.	Height. 18 inches.	Flowers in June.	Duration. Perennial.	Cultivated in 1789.

No. 484.

The genus, Geranium, being considered somewhat inconveniently large, the French botanist, L'Heritier, effected its division by an easy method. As established by Linneus, some species had a portion of their ten stamens abortive. L'Heritier availed himself of this circumstance, and all such Geraniums as possessed but five fertile stamens he called Erodium, and those with seven, Pelargonium. To this latter division belongs the extensive class of ornamental greenhouse plants, commonly still called Geranium.

As the Greek GERANOS, a crane, gave the original generic name; so HERODIOS, a heron; and PELARGOS, a stork, afforded the name to the new genera. The resemblance of the seed vessels of these plants, to the long bills of the birds mentioned, suggested the adoption of their names.

The Geranium angulatum, from its numerous flowers, is highly ornamental. It may be appropriately planted amongst low shrubs, or strong herbaceous plants; and it will succeed in rather shady places, which renders it oftentimes, a desirable plant. Division of the roots affords sufficient increase.

Don's Mill. Dict. 717.

Anagallis fruticosa. ⅓

Scutellaria peregrina. ⅓

Orobus hirsutus. ⅓

Tulipa sylvestris. ⅓

ANAGAL'LIS FRUTICO'SA.

SHRUBBY ANAGALLIS.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Morocco.	2 feet.	May, Aug.	Biennial.	in 1803.

No. 485.

The original Anagallis of the Greeks received its name on account of its medicinal virtues. It was thought to cure the spleen and induce cheerfulness. The term fruticosa, from the Latin frutex, a shrub, is applied in allusion to the firmness to which its herbaceous stems attain.

This beautiful species of Anagallis, though long known in our greenhouses, has not, till of late, held a prominent place in the general flower garden. We shall not recommend it on account of the medicinal properties connected with its name. The very place of its habitation supersedes the necessity of its virtues. As Cowper says,

"The spleen is seldom felt where Flora reigns;
The low'ring eye, the petulance, the frown,
And sullen sadness, that overshade, distort,
And mar the face of beauty, when no cause
For such immeasurable woe appears;
These Flora banishes, and gives the fair
Sweet smiles and bloom less transient than her own."

It is the mode of culture alone, by which the possessor of the hardy flower garden, avails himself of the pleasure of displaying such plants as the Anagallis

fruticosa on his borders. The method to be pursued is this. In August, strike cuttings of the young shoots, either under a hand-glass, or in a close frame. If a little bottom heat be at command, it should be employed, as the cuttings will root the more freely; care, however, should be taken that the young plants be not drawn up weakly by its use. or they will be less able to bear the vicissitudes of winter. After having struck root, they should be potted round the sides of small pots, in a sandy compost, and kept in the shade till they are well established. If the weather permit, they may have full exposure till autumnal nights indicate the propriety of depositing them in the cold frame for winter protection. The pots, into which the young plants are thus removed, should be well drained; that is, be not less than one-third filled with broken pots. The importance of this practice cannot be too much insisted on, as it prevents any stagnant moisture continuing about the roots of the plants; and induces a diffusion of healthy fibres through the interstices of the drainers, in a manner only to be appreciated by the experienced cultivator. Pots of plants, when deposited in a cold frame, should always be immersed to their rims in sand. It prevents rapid changes both of temperature and of moisture. The Anagallis fruticosa should be turned into the open ground at the end of May. It does not usually produce seeds, but probably it may be artificially fertilized by pollen of another species, and improved varieties obtained. A trial of this should be made, since every year shows the importance of hybrid productions in the flower garden.

Hort. Kew. 2, v. 1, 316.

SCUTELLA'RIA PEREGRI'NA.

FOREIGN SKULLCAP.

Class.
DIDYNAMIA.

Order.
GYMNOSPERMIA.

Natural Order.
LABIATÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Italy.	18 inches.	July, Sept.	Perennial.	in 1683.

No. 486.

The Latin, scutella, a little dish, gives a name to the present genus. The peculiar shape of the calyx and seed vessel are thus alluded to, both in the systematic and English names. The Latin term, peregrina, signifying foreign, strange, or new, seems to have marked the attention it excited on being received by its great nomenclator, Linneus.

The Scutellaria peregrina is a neat growing unobtrusive plant, modestly elevating its pretty one-sided spikes of flowers for examination; to facilitate which, it should be planted near to the edge of the parterre. It branches out but sparingly, therefore requires little space—a desideratum which none can appreciate, but those whose desire of variety, exceeds their means of accommodation.

Through mild winters it succeeds perfectly in the borders, but we do not find it bear frosts, although it is usually considered quite hardy. The surest plan is always to strike it from cuttings, and keep a plant or two in the cold frame, for turning into the borders in April. It may be raised also from seeds; but we have observed that when sown in spring very few of them vegetate.

Hort. Kew. 2, v. 3, 429.

OR'OBUS HIRSU'TUS.

HAIRY BITTER-VETCH.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Thrace.	6 inches.	May, June.	Perennial.	in 1822.

No. 487.

It is very certain that the name of this genus was not founded on the present species, for in fattening oxen its wiry stems would prove of little worth. The Greek words ORO, to excite; and BOUS, an ox, are compounded to indicate such fattening qualitys, which the Orobus of the ancient Greek botanists probably possessed. Hirsutus, from the Latin, rough or hairy.

This is a very pleasing little plant, and one that deserves attention to its increase, so that a good patch may be obtained; which, by the bye, is what we have never seen. It is rather scarce, being very seldom met with excepting in respectable nurseries. As it is quite hardy, and suitable for ornamenting rock-work, or the foreground of borders or mounds, by its delicate blossoms, we hope to see it more plentifully distributed through the collections of admirers of this class of plants. We have never observed it ripen seeds, therefore increase must be dependent on a division of its roots. This should be performed in the spring, in preference to autumn. It succeeds best in a rich light loamy soil, in a situation which is rather dry and open.

Bot. Mag. 2345.

TULIP'A SYLVES'TRIS.

WILD TULIP.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
TULIPACEÆ.

Native of	Height.	Flowers in	Duration.	Inhabits
England.	15 inches.	April, May.	Perennial.	Chalky pl.

No. 488.

Our beautiful garden Tulip is a native of Persia, and from its native country it carried with it a likeness of its original name—Thoulyban or Tulipan. This is the Persian name of a turban, and its application needs no comment. Sylvestris, from the Latin, sylva, a wood, marks the species under consideration, as an inhabitant of such situations. We have never discovered this plant in its native retreat; but from its habitats, as registered by English botanists, the name sylvestris is not peculiarly applicable. Old chalk pits are chiefly named as the situation where it has been discovered as an English plant. Some botanists doubt whether it may not originally have escaped from garden cultivation, but of this we can offer no opinion. There appears no doubt, however, of its having been known to Gerard, through his "Loving friend, Master James Garrett," previously to 1597. Two sorts, which he mentions, he distinguishes as the Italian and the French. From his description of these, both are of the same species, and identical with our sylvestris, a circumstance which tends to weaken its claim to the honour of being one of England's aboriginal inhabitants.

This species, in appearance, is very distinct from the splendid Tulipa Gesneriana, or florist's garden Tulip. Its pointed petals, and yellow anthers, strongly mark its difference. Its nodding flower, too, as though it bowed to superior merit, is a character peculiarly its own: quite unlike those favoured nurselings of the florist in their separate drill ground, which stand in the pride of conscious beauty, ranked and upright as a military squadron.

We are fully sensible that if measured by the florist's rules of beauty, our present unchangeable Tulip will stand excluded their society; but none would estimate an Italian beauty and a Dutch Burgomaster, by the same standard of value. Those who are uninfluenced by the conventional rules of the florist will admire the Tulipa sylvestris for its own sake; and those of the initiated, whose taste is refined by such laws, should cultivate it as a foil to their favourites, and gather pleasure from the comparison—from the advantages afforded them, by assiduous and experienced cultivation. It is true wisdom to search out happiness from every occurrence. As beauty is seen in the garden, arising out of ten thousand combinations of the most opposite shapes and colours; so, to a mind rightly directed, is contentment deducible from innumerable chances and circumstances to which human life is exposed; but, be it remembered, that as the one is available only through the light of the sun, so is the other through that of revelation.

The Tulipa sylvestris requires no peculiar care in cultivation, not even the removal of its bulbs. Offsets may be transplanted in August.

Hort. Kew. 1, v. 2, 249.

Nuttalia papaver. ½

Campanula excisa.

Ophiopogon spicatus. ½

Geranium pratense. ½

NUTTAL'LIA PAPA'VER.

POPPY-FLOWERED NUTTALLIA.

Class.
MONADELPHIA.

Order.
POLYANDRIA.

Natural Order.
MALVACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Louisiana.	2½ feet.	July, Oct.	Perennial.	in 1833.

No. 489.

The present genus has been named in honour of Professor Nuttall of Cambridge, in New England.

Seeds of this very showy plant were first sent by Mr. Drummond, from the southern states of North America, to this country, and distributed among several collections; and although this took place so lately as the year 1833, yet in the last year, 1834, it might have been found in almost every nursery of repute in Great Britain. Such are the rapidly increasing means by which the rapidly increasing taste for botanical pursuits is met and gratified. It is productive of pleasure, in every point of view, to see so healthy a national appetite, receiving, daily, as it were, such delightful and wholesome stimulants from foreign lands,—novel as well as exotic. It would not perhaps, be entirely correct to designate such mental food as devoid of all the qualities attendant on that of a grosser nature. It may be confessed as occasionally being a very little, the least in the world, as Miss Mitford would say, intoxicating. It is however an intoxication of good in lieu of evil; not the intoxication of stupor, but vivacity—not producing the flush of fever, but the glow of health; and an

extacy inspired by the acquisition of another favour, dispensed by the bountiful dispenser of all. Every new plant is received as a new and unthought-of gift, and carries with it all its consequent delight.

The Nuttallia papaver is, indeed, a very splendid accession to our gardens, and we have not the least doubt but it will be received as an inhabitant, and not a visitant only. It is at present, so much a stranger, that we scarcely can offer any certain rules of management. It appears, however, to be of very easy culture, when grown in pots, in a mixture of loam, peat, and sand; in which it will flower freely, from July through the autumn. It produces several flowering stems from the crown of the root, and may be divided, and thereby increased, with facility; which cannot be effected with the other species of this genus.

There can be no doubt but plants turned into the borders in the spring, will flower in great luxuriance during a great part of the summer, and also perfect seeds if artificially fertilized. Till its habits and powers of resisting cold are thoroughly ascertained by experience, it will of course be prudent to give it a little protection against frosty weather. It appears, notwithstanding, to be hardy, and it may be hoped will prove so; still its habitat would lead us to suspect that it is not fully proof against the inclemency, or rather variability, of our climate. It would be advantageous, in several respects, if foreign collectors would register both the latitude and altitude of the native situation of every newly-discovered plant. As men of ability are engaged in this pursuit, such advantage is of easy attainment.

Bot. Mag. 3287.

CAMPAN'ULA EXCI'SA.

CUT BELL-FLOWER.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAMPANULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Switzerland	5 inches.	June, July.	Perennial.	in 1820.

No. 490.

Campana a bell, hence bell-flower. The specific term excisa, meaning an excision, is applied to this plant, in allusion to its cut corolla.

This most extensive genus contains a multitude of beautiful plants, some of which Britain may call peculiarly her own. The English road-side banks, through many of the midland counties, owe more of their summer beauty to one of its species, than to any other flower; we mean the Campanula rotundifolia, and occasionally, the Campanula patula, both of them brilliant ornaments. The British botanist cannot help recognising the former of these as a faithful travelling companion. Those individuals whose eyes happen to have been formed of such focus as never to see society of this class, are little aware of the pleasures they lose.

The Campanula excisa is a beautiful little species, producing an abundance of its elegant flowers. It is well suited to the foreground of the parterre, and to artificial rock-work. It may also be advantageously grown in pots with other alpines. The soil should be sandy loam; and the aspect southerly, or varying from that towards the east.

Don's Syst. Bot. v. 3, 760.

OPHIOPO'GON SPICA'TUS.

SPIKED SNAKE'S-BEARD.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
SMILACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
China.	9 inches.	Aug. Sept.	Perennial.	in 1820.

No. 491.

The generic name now before us is founded on the one used in Japan for another species of this genus. Its meaning is snake's beard; hence Ophiopogon, from the Greek OPHIS, a snake; POGON, a beard, but why this idea should have been originally adopted, we are wholly uninformed.

This plant is not commonly met with, although well deserving cultivation. On the whole it may, perhaps, be considered as better adapted to pot culture, than for growth in the open borders.

In pots, it should be grown in a mixture of loam, sand, and a small portion of peat, with a free use of drainers. Unless division be required, it is far better to encourage its growth by occasional removals into larger-sized pots; as the stronger the plants become, the finer they will flower without danger, as is the case with some plants, of damping off for want of division. They may be plunged with the alpines in summer, and be protected in the cold frame during winter. If planted in the open ground, the situation should be sheltered, and in very severe weather, a little straw or a mat, should be thrown over the roots.

Bot. Reg. 593.

GERA'NIUM PRATEN'SE.

flore variegata.

VARIEGATED MEADOW CRANE'S-BILL.

Class.
MONADELPHIA.

Order.
DECANDRIA.

Natural Order.
GERANIACEÆ.

Native of Britain.	Height. 2½ feet.	Flowers in June, July.	Duration. Perennial.	Cultivated in 1790.

No. 492.

For the derivation of Geranium, see No. 193, Pratense, from the Latin pratum, meadow, or green field.

This variety of our meadow Crane's-bill is showy and handsome, and its flowers partake of a degree of delicacy, by which it greatly surpasses, in effect, its more common blue congener. Its flowers vary much in the portion of colour which they display, some being nearly all blue, whilst others are produced completely white. The Geranium pratense is a rather luxuriant grower, and well adapted to the backs of borders, or to conceal and shade the surface of mounds, where standard roses and tall perennials prevail.

In cultivation no plant requires less attention. Its exuberance, if inconvenient, may easily be made to accord with its situation. The spade and the knife oftentimes require to be used with uncompromising freedom in the garden.

The order geraniaceæ is physiologically interesting in the economy of its seed vessels. It was, long since, observed by Dr. Arnold, that among the numberless instances of obvious Providential design and contrivance in the structure of the seeds and

seed-vessels of plants, few are, perhaps, more remarkable, or more strikingly display themselves as the workmanship of an intelligent artificer, than that which we meet with in the seeds of the Erodium cicutarium, moschatum, and some species of Geranium. The seeds of this genus surround the pistil at its base; each seed is covered with a distinct seed-coat peculiar to itself, which, after having inclosed the seed runs out in the form of a narrow appendage or tail, to the extremity of the style, to which it is slightly connected along its whole length, and which has five grooves or flutes to receive the five seeds with their appendages. Each of these appendages has the property of contracting itself into a spiral or screw-like form, when dry; and of again extending itself into a right line, when moist. In short, it is a spiral spring, which lengthens or contracts itself alternately, as often, and in such proportion, as it happens to become wet or dry. The power first exerts itself when the seed and its appendage becomes dry, in consequence of arriving at maturity; when it gradually separates the seed from its parent plant. The seed, thus disengaged, is continually contracting and dilating itself, as the weather changes from wet to dry, and from dry to wet; and by this means is kept in motion, till it is either destroyed by the viccissitudes of the seasons, or meets with some crevice in the earth, or some light porous spot, into which it can insinuate itself, and from thence, in due time, produce a new plant. All its manœuvres may be seen in a short space of time, by alternately moistening and drying it, either in the sun, or by the warmth of a fire.

Don's Syst. Bot. v. 1, 718.

Houstonia cærulea. ½

Erica ciliaris. ½

Primula minima. ½

Campanula hederacea.

HOUSTO'NIA CÆRU'LEA.

BLUE-FLOWERED HOUSTONIA.

Class.
TETRANDRIA.

Order.
MONOGYNIA.

Natural Order.
GENTIANEÆ.

Native of N. America.	Height. 5 inches.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1785.

No. 493.

Doctor W. Houston, in honour of whom this plant was named, resided, we are told by Sir J. E. Smith, several years in the West Indies, and was a correspondent of Miller, between 1728 and 1732. Some engravings, by his own hand, of the parts of fructification of various new genera of plants, came into Miller's hands, who sent an impression of them in 1736 to Linneus. Most of these plates were purchased, with Miller's herbarium and papers, by Sir Joseph Banks, who printed and liberally distributed an edition of them, with the Latin descriptions and remarks of the author, under the title of Reliquiæ Houstounianæ, in quarto, in 1781, a work which is now somewhat scarce.

This is a charming little plant, both for pot culture and the parterre, and especially for artificial rock-work, or stone borders; where, under the southern side of the rugged mineral, it may luxuriate in beauty, and bid defiance to the northern breeze. The experienced cultivator alone can duly estimate the value of such rough nurses as rest on a stone border—nurses beneath whose shelter, he may anticipate the rise of springing beauties, the incoming

tide of an approaching summer, described by Bishop Mant, in his British Months:—

"As when the rising flood's at hand,
To one who loiters on the strand,
'Tis pleasant by the ocean's side
To muse and mark the incoming tide,
And count the billows of the deep
As onward step by step they creep,
Till one broad convex shield o'erlay
With silver all the brimming bay:
Ev'n so 'tis sweet, this vernal time,
To mark the still advancing prime,
How in her calm and creeping course
Boon nature's vegetative force
Steals onward with resistless flow;
As promising erelong to throw
A broad and bloom-embroidered robe
Of verdure o'er the shining globe."

When the Houstonia cærulea is cultivated in pots, the proper soil is peat, or peat and loam, with one third part of sharp sand, and a good supply of drainers at the bottom of each pot. It requires to be divided in spring; and should then be put into pots of small size, and be removed into others of larger size for flowering, which may be expected to be luxuriant in June. Some of the strongest plants may again be divided in august, and they will continue flowering till winter. The plants in pots should have frame protection, during the severe weather. The only care demanded by those plants which have been put out on rock-work, or peat beds, is occasional division, and a little attention to prevent their being lifted out of the soil by successive frosts.

Hort. Kew. 2, v. 1, 235.

ERI'CA CILIA'RIS.

CILIATED HEATH.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICEÆ.

Native of	Height.	Flowers in	Duration.	Inhabits
England.	1 foot.	July, Sept.	Perennial.	Heaths.

No. 494.

The name is derived from EREICO, to break, in allusion to the fragility of the plant, or its medicinal virtues. Ciliaris, from the Latin, cilium, the hairs of the eyelid. The edges of the leaves being furnished with little hairs, are, botanically, said to be ciliate, hence the specific name. In addition to its ciliate character, on examination, it will be found that each little hair is tipped with a gland.

This is a beautiful species of heath, long known as a native of the south of Europe, but recognized only a few years ago, as belonging to the English flora. That a plant like the Erica ciliaris, should so long have escaped the observation of the scientific, and be registered a recent discovery on the heaths of Cornwall, is very encouraging to English botanists. Every searcher through glens and vales, may still hope to find a new and unthought-of treasure—may still hope to add another flower to Britain's nosegay.

The Erica ciliaris should be planted in sandy peat; or in leaf-mould, mixed with a little sandy loam. A warm and sheltered situation will be found most conducive to its luxuriance

Don's Syst. Bot. v. 3, 798.

PRIM'ULA MIN'IMA.

LEAST PRIMROSE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
S. Europe.	2 inches.	April, May.	Perennial.	in 1819.

No. 495.

This generic name alludes to the early flowering of the plant, being deduced from the Latin, primus, first, an idea which is not peculiar to England, but is carried into several continental languages. Minima, from minus, less.

Every species of primula is met with pleasure. The whole family appear to be associated with the first-coming rays of Spring—the cheering sunbeams of April and May—green meadows, and universal gladness. Spring and primroses are the poet's own subjects, and from them we imbibe not a few of our pleasures. They paint in vivid colours, and their pictures are enjoyed, and remembered, and enjoyed over and over again.

This species of Primula is of more humble growth, than most others, but perhaps no one can be said to be prettier. It succeeds very well when grown in a pot; or it may be planted in the borders, in peat, loam, and sand. Plants of this description, when grown in the borders, should have a small space allotted to them, exclusively, open to the morning sun, but protected from midday heat. It may be divided at any season.

Bot. Reg. 581.

CAMPAN'ULA HEDERA'CEA.

IVY-LEAVED BELL-FLOWER.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAMPANULACEÆ.

Native of	Height.	Flowers in	Duration.	Inhabits
England.	3 inches.	June, July.	Perennial.	moist shade.

No. ~~486.~~ 496

The derivation of Campanula has been lately noticed. The specific name, hederacea, is deduced from hedera, the systematic name of the ivy; and is used to denote the resemblance of their leaves.

This is a close-growing plant, its foliage forming a green tuft on the surface of the soil. We have used the Campanula pumila as a summer edging, and when treated as directed under that article, it forms a remarkably neat one. The Hederacea, to give variety, may be used for the like purpose, and would not require the same precaution to prevent inconvenient extension.

It has a peculiarity, which is not sufficiently indicated by the accompanying representation. Our draughtsman's correct eye was misled by drawing from gathered specimens, which had somewhat drooped. Its corolla is rarely pendent; but it has generally an erect position. It is the Wahlenbergia hederacea of Alphonso De Candolle.

Sandy peat and loam is a suitable soil, with a rather shady situation. If in pots, it should be divided in September, as old plants not unfrequently decay in winter.

Don's Syst. Bot. v. 3, 739.

Sisyrinchium Bermudianum. ½

Genista ephedroides. ½

Silene laciniata.

Statice sinuata. ½

E.D. Smith del.

S. Watts. sculp.

SISYRIN'CHIUM BERMUDIA'NUM.

Var. major.

LARGE BERMUDA SISYRINCHIUM.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Bermudas.	1 foot.	June, July.	Perennial.	in 1732.

No. 497.

Sisyrinchium is a name adopted from the ancients. It is deduced from the two Greek words SYS, and RYNYCHOS, signifying pig and snout; but why it was thought applicable to any plant is now unknown. The specific name has a sufficiently evident application.

This distinct seminal variety of the Bermuda Sisyrinchium is chiefly distinguished by its size, its large portion of yellow colour in the flower, and broad leaves. This variety may be considered as rather more hardy than the common one, but neither of them will bear severe frosts in the open borders, uninjured, in any degree equal to the Sisyrinchium anceps. It is a showy and free flowering plant, very desirable for the open garden, during summer, and particularly for those situations having shade from the midday sun, as its flowers quickly decline under full exposure to its heat.

Plants which have flowered in the borders may be taken up and potted in September, preparatory to having a place in the cold frame. In April they may be again turned out. Seeds should be sown in autumn, in pots, and be protected during winter.

GENIS'TA EPHEDROI'DES.

EPHEDRA-LIKE GENISTA.

Class.
MONADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Sardinia.	4 feet.	June, Sept.	Perennial.	in 1832.

No. 498.

The derivation of the name Genista, is mingled with much uncertainty. The Latin genu, the knee; and also the Celtic gen, a small bush, are mentioned as its root. Ephedroides, like an ephedra, a genus somewhat resembling our equisetum.

This pretty addition to our hardy shrubs was introduced by F. Westcott, Esq. of Erdington, near Birmingham; who raised it from seeds, taken out of a pod which he found matured on a Sardinian specimen, in his Hortus Siccus. We are informed by Mr. Westcott that he received the specimen amongst a collection of others, from the German Union; and that he has raised several rare plants from seeds obtained through the same medium.

Its slender branches and small flowers, shewn by a small specimen only, have little gaiety, but the shrub, in a growing state, is altogether interesting and ornamental.

Mr. Cameron, curator of the Birmingham Botanic Garden, to which establishment Mr. Westcott presented the plant, informs us that cuttings of it strike readily; and that it flourishes in any common soil, but has not yet perfected seeds.

Don's Syst. Bot. v. 2, 150.

SILE'NE LACINIA'TA.

JAGGED-PETALLED CATCHFLY.

Class.
DECANDRIA.

Order.
TRIGYNIA.

Natural Order.
CARYOPHYLLEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	1½ feet.	July, Aug.	Perennial.	in 1823.

No. 499.

The genus Silene acquired its name from the saliva-like fluid that is found on some of its species.

The Silene laciniata is an ornamental plant, but not very hardy. Its habit is best adapted, during summer, to a warm border, and to dry frame protection during winter. In the greenhouse it is liable to be drawn and become weakly. As it produces seeds but sparingly, cuttings should be struck every summer, and planted in fresh sandy loam, mixed with a small portion of decayed leaves.

Many species of Silene possess much beauty: indeed, the whole may be considered very interesting, notwithstanding some of them have rather diminutive flowers. It is a most extensive genus, comprehending, according to Don's System, not less than two hundred and fifty-six species. Its near relation, Dianthus, has also an hundred and twenty-five species, and Arenaria has an hundred and forty-seven; hence, it appears that from three genera, alone, of the natural order Caryophylleæ, a collection of more than five hundred plants can be formed.

It may not be unimportant, occasionally, to view the extent of the means, and fertility of the sources,

whence the botanist can draw his gratifications.

In considering the great number of plants thus united, as we have just seen, by such close affinities, yet each one distinct from its congener, the mind can but be strongly impressed with the magnificence of that design of the divine Creator, of which we here catch a glimpse, in the detail of so inconsiderable a portion of his care. It must be kept in view that nature, in the aggregate, presents us with unity of design. We, usually, examine isolated scraps, to compare their differences; when, however, we consider that all creation is comprehended under one regularly graduated whole; that it exhibits, step by step, a progressive developement, from the lowest quality of inorganic matter, up to man, the most perfect of animated earthly creatures, how utterly incapable are we of tracing those gradations, and almost invisible distinctions, which lead from being to being, through the ascending scale of creation.

These considerations should be impressed on the mind of the young naturalist. None can comprehend all the laws of nature, but the outline of her works is more obvious. We may read the index to her operations, although the details are not unfrequently in secret characters. The whole may be seen as composed of an alphabet of simple elements—elements which combine into matter, as letters into words; matter combines into beings, as words into sentences; and again, as series of sentences make chapters, so series of beings constitute classes, and of these the incomprehensible book of creation is compiled, and perfected by the hand of the original Law-giver.

Don's Syst. Bot. v. 1, 413.

STA'TICE SINUA'TA.

SINUOUS SEA LAVENDER.

Class.
PENTANDRIA.

Order.
PENTAGYNIA.

Natural Order.
PLUMBAGINEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Levant.	18 inches.	June, Sept.	Perennial.	in 1629.

500.

The Greek STATIZO, to stop, from its astringent qualities, is believed to be the origin of the present generic name. Sinuata from the Latin, used in allusion to the in-and-out margin of the leaves.

This is a very singular flower—one that always excites admiration, by the peculiarity of its flowers. Whilst its corolla is colourless, and delicate, its calyx is its prominent banner of display, being lilac-coloured, and comparatively large. It is also scariose, or dry and chaffy; consequently its colour continues good in the herbarium.

Although this plant is perennial, it is the most easily cultivated as a biennial, by those who do not possess a greenhouse. Young plants may be kept in the cold frame, or by the use of some other convenient house protection, but they will not so certainly succeed after having flowered. Its seeds, which are sparingly produced, should be sown in spring, in a hot-bed; transplanted singly into pots, and protected during winter. These, if turned out, at the end of April, into a border of light rich soil, will amply repay the attention, which they may have received.

Hort. Kew. 2, v. 2, 184.

Zexmenia tagetiflora. ½

Dracocephalum canescens. ½

Lobelia tupa. ½

Antennaria triplinervis. ½

ZEXME'NIA TAGETIFLO'RA.

TAGETES-FLOWERED ZEXMENIA.

Class.
SYNGENESIA.

Order.
NECESSARIA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	2 feet.	September.	Perennial.	in 1829.

No. 501.

The name of Joseph Xemenes, an apothecary of Spain, is commemorated by the genus Xemenesia; and Zexmenia is quoted simply as an anagram of that appellation. The specific name, Tagetiflora, distinguishes it as resembling a tagetes.

Zexmenia tagetiflora is an upright growing unobtrusive plant, with flowers possessing a neatness, and bright golden hue, which recommend it to notice and culture in the flower garden. The great number of Mexican and Chilian plants which have of late years been introduced to England, are contributing much to the experience and the means of successfully keeping these half-hardy subjects. If the winters of our uncertain climate are somewhat more severe than in those countries, our zeal and our means are more than commensurate; and British gardens now boast a variety equalling any of the more southern latitudes.

This Mexican suffruticose plant may be increased from cuttings, or slowly, by division of its roots. It should have a dry warm situation, where it will endure our winters, with the trifling protection of a little straw or matting, in frosty weather.

DRACOCE'PHALUM CANES'CENS.

CANESCENT DRAGON'S-HEAD.

Class.
DIDYNAMIA.

Order.
GYMNOSPERMIA.

Natural Order.
LABIATÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Levant.	2 feet.	July, Aug.	Annual.	in 1711.

No. 502.

The Greek words DRACON, CEPHALE, signifying Dragon's-head, have been compounded in allusion to an imaginary likeness of the flower to the head of an imaginary animal, see No. 57. Canescens is a term appropriately used in reference to the close whitish pubescence with which the leaves of this species are covered.

Notwithstanding this showy annual has been introduced to England upwards of a century, it is, comparatively, little known. Its pretension to a place amongst the best annuals that we know is however undoubted. Flowers have a destiny. Many plants of great beauty are, sometimes, scarcely acceptable on account of their attractions being inferior to those of some similar subject. We know no blue-flowered didynamous annual that may be esteemed a direct competitor with this. Such absence of rivalry, therefore, must make it the more desirable.

It is of the most easy culture, requiring only to be sown in the borders, at the end of March. If a hotbed be at command, plants may be forwarded so as to obtain an earlier blossom.

Hort. Kew. 2, v. 3, 420.

LOBE'LIA TU'PA.

TUPA LOBELIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
LOBELIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
J. Fernand.	6 feet.	Sept. Oct.	Perennial.	in 1824.

No. 503.

The name, Lobelia, was adopted in honour of the Flemish botanist, Matthias de Lobel, Tupa is the common Chilian name.

Several varieties of this very handsome autumnal flowering plant have lately appeared in our gardens. They grow with great luxuriance and assume a bold and ornamental appearance. Much has been said regarding its virulently poisonous effects, but these statements have wholly emanated from the "Journal des Observations" of Feuillee, who travelled in South America. He says the smell of the flowers cause severe vomitings, and the milky juice of the plant, if it touch the eye, occasions blindness. The first assertion is, certainly, incorrect. Dr. Darwin adds, poetically, to the alarm—

"And fell Lobelia's suffocating breath
Loads the dark pinion of the gale with death."

The Lobelia tupa is by no means frequently seen, even amongst the best collections of plants. It is not very hardy, and should, therefore, be planted in a warm situation. Near a south wall, in a tolerably dry soil, it seldom fails. It may be increased by divisions of its roots.

Don's Syst. Bot. v. 3, 700.

ANTENNA'RIA TRIPLINER'VIS.

THREE-NERVED ANTENNARIA.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Nepal.	6 inches.	August.	Perennial.	in 1823.

No. 504.

The name of this genus, Antennaria, is deduced from antennæ, in reference to the similiarity which exists between the seed down of the plant and the antennæ, or feelers, of an insect. Triplinervis alludes to the three nerves of the leaf, which unite above its base.

The Antennaria triplinervis is a desirable border plant. Its cinereous aspect distinguishes it from others in the parterre, whence a variety of tint is afforded, a circumstance which should not be disregarded. The landscape gardener well knows the importance of blending and varying foliage tints in the shrubbery and distant scenery—the science of a Brown and a Repton. And if this be so important, on the broad scale, why should not the botanist and florist, in his minor arrangements, keep such principles in view. He should not merely regard the colour of his blossoms, and aim solely at producing strong contrasts, but studying the value of foliage tints and floral tints in connexion, endeavour to exhibit on a reduced scale the principles of plantation scenery within the miniature limits of his flower garden. When for a moment considered,

every one can discover the value of opposing colours and forms to each other. Familiar examples of this effect may be witnessed in almost every cottage garden. It may, indeed, be seen combined in a simple edging of daisies, with their deep green foliage, surrounding a bed, decorated chiefly with pinks, and with here and there a polyanthus. If not injured by negligent keeping, here will at once be a mingling of colour and forms, which will please—even without a flower.

In all matters relating to planting, it should be observed that, in its just regulation, a large demand must be made on the taste of the director. That taste too should be cultivated by a perpetual observance of nature, and occasional comparisons of the efforts of art in landscape gardening; it will then generally produce a just feeling of the simplicity and combination at which we should aim. In the flower garden, however, it is a more a work of art than nature. Invention is often in demand to meet particular circumstances, and to hide deformities; and the whole is a work of ingenuity and of contrivances to meet the wants of the cultivator, and to produce neatness in the aggregate, rather than an imitation of natural assemblages and changes.

The Antennaria triplinervis, and its more common relation, the Antennaria margaritacea, will be of service in thus diversifying the tints of the parterre. They preserve their colours when dried, and will assist in the composition of a winter bouquet.

The present plant may be increased by division of its roots, or by cuttings. It should be planted in a light soil, and have a slight protection.

Bot. Mag. 2468.

Lavatera salvetellensis. ½

Centaurea glastifolia. ½

Vicia pseudocracca. ½

Acanthus spinosus. ½

E.D. Sm. del.

J. Watts sculp.

LAVATE'RA SALVITELLEN'SIS.

PYRAMIDAL LAVATERA.

Class.
MONADELPHIA.

Order.
POLYANDRIA.

Natural Order.
MALVACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Uncertain.	6 feet.	July, Sept.	Biennial.	in 1831.

No. 505.

Lavatera, was founded on the name of Dr. Lavater, of Zurich. Salvitellensis, a name of Brignoli, with the derivation of which we are unacquainted.

This is a handsome and very ornamental species, bearing much of the character of Lavatera triloba, a plant of great beauty, which we figured, No. 437; excepting that salvitellensis is somewhat more slender and pyramidal in its growth; it is, too, of shorter duration. It has been considered biennial; but, although short lived, it will flower two or three years.

The greater portion of the malvaceous plants are very showy subjects; some are really splendid. The genus hibiscus may be instanced as eminently so; and our indigenous species of mallow are by no means unworthy of notice.

The Lavatera salvitellensis produces seeds very sparingly. From these it may be raised, by sowing them early in spring. If they be forwarded by a little artificial heat, some of the plants may be expected to blossom in the succeeding autumn. They will die down, and spring again in the following May, and flower strongly. Cuttings will sometimes strike root, by which the species may be continued.

CENTAU'REA GLASTIFO'LIA.

WOAD-LEAVED CENTAURY.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Siberia.	2½ feet.	July.	Perennial.	in 1731.

No. 506.

Centaurea, from the Greek KENTAUROS, a centaur. The application is supposed to have originated in classic fable; Chiron, the wise centaur, having been represented as using the original Centaurea in the cure of a wound. Glastifolia has been applied from the likeness of its leaves to the glastum of old authors, a dye plant, now known as Isatis tinctoria, or common woad.

This plant is one amongst many others which has long been known in British gardens, but never has been commonly cultivated. It is an ornamental and desirable plant; and moreover, bears some characters of peculiar interest to the botanist. Its decurrent foliage runs down the stem in a more distinct manner than any plant we know; and the veins of its leaves, are similarly prominent on their upper as on their under surface; a circumstance which is very uncommon.

The Centaurea glastifolia requires no peculiar care in cultivation. It is as hardy, and increases almost as rapidly, as the Centaurea montana. It is advantageous to part and replant it every autumn, or early in spring.

Hort. Kew. 2, v. 5, 153.

VI'CIA PSEUDOCRAC'CA.

FALSE CRACCA VETCH.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Italy.	$2\frac{1}{2}$ feet.	Aug. Sept.	Annual.	in 1824.

No. 507.

The name, Vicia, is referred, by some etymologists, to the Latin, vincio to bind together, in allusion to its tendrils training about and binding other plants. This derivation is, however, uncertain. Some authors have considered it as a word derived from the Celtic.

This is both a useful and ornamental annual. It may, with advantage, be planted against fences of every description, at the foot of vacant walls, or in any situation requiring to be hidden, or rendered attractive in summer. In ornamental gardening, much depends on attention to minor points of this description. It is not sufficient that plants of rarity and beauty combine to form a good collection; but it is likewise desirable that their attractions be not deteriorated by connexion with unworthy objects, nor that they be displayed where neglect may occasion a drawback on the pleasures which their presence is calculated to produce. The natural rudeness of the simplest cottage garden, if characterized by attentive culture, will always please.

This species of Vetch should be raised by slight heat, and turned out in May for flowering.

Don's Syst. Bot. v. 2, 317.

ACAN'THUS SPINO'SUS.

PRICKLY-LEAVED ACANTHUS.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
ACANTHACEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
S. Europe.	3 feet.	July, Sept.	Perennial.	in 1629.

No. 508.

This generic name is derived from the Greek, AKANTHA, a spine; a name sufficiently applicable to the plant under consideration. Its specific name has also the same reference.

All the species of Acanthus are plants of tolerably strong growth, with roots that strike deeply into the soil. Some of them are very tenacious of life; springing from portions of the root, which happen to be broken from the main plant. In this way it may be readily propagated, a circumstance that would naturally lead us to expect its more general distribution in gardens and ornamental grounds.

The tradition connected with the Acanthus, regarding its having given the idea of the capital of the Corinthian column, should not be forgotten. Whether this be correct or otherwise, it is unnecessary to enquire; certain it is, that architecture owes much of its beauty—much of its perfection to flowers, foliage, and trees. Nature in the garden, in the park, and the wide expanse of country scenery, affords one of the best assistant schools of pure taste; not only to the architect in his outlines, and in his enrichments, but to artists connected with almost

every branch of manufacture in which embellishment is demanded.

"The history of the origin of the Corinthian order, which might possibly be contrived to give an interest to the invention, though so often repeated and so well known, may, nevertheless, be here told once more as a pleasing anecdote of ancient manners. A young maiden of Corinth having died, her mother or nurse collected, in a basket, the toys which she had been fond of while alive, and carried them to her grave, where she left the basket covered with a tile to preserve its contents from the weather. The basket happened to be set upon the root of an Acanthus. The plant being thus depressed in the middle, its leaves and stalks spread outwards, and grew up around the sides of the basket till they were bent down by the tile, which lay projecting over its top. At that time Callimachus, the sculptor, chanced to pass by the grave, and being pleased with the agreeable appearance of the foliage, and novelty of the form, he converted it to the purposes of architecture; and having made some columns of a more delicate proportion than had been used before, he adopted the basket and leaves of the Acanthus for the capital; and thus established the symmetry and ornaments of the Corinthian order."

It is by no means improbable, that architecture may have owed the origin of its arch, pointed and circular, to the natural outline of trees. The wooded avenue, and rows of forest trees, not unfrequently represent arches of the most magnificent character; the contemplation of which can never fail to interest, and to gratify the cultivated mind.

Hort. Kew. 2, v. 4, 69.

Gilia tricolor.

Saponaria Calabrica.

Lathyrus rotundifolius

Uvularia puberula.

GIL'IA TRI'COLOR.

THREE-COLOURED GILIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
POLEMONIACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
California.	1 foot.	June, Sept.	Annual.	in 1833.

No. 509.

Gileo was a Spanish botanist and author, whom Ruiz and Pavon, his countrymen, commemorated by the adoption of his name for the present genus.

This is one amongst the prettiest hardy annuals, not only of recent introduction to this country, but that is known to our gardens. It is, too, the more pleasing from the variation of tint seen amongst its delicate flowers, some of them being even white. The better known Gilia capitata assumes a very distinct appearance from the present species, but a little examination will show that this difference arises simply from its flowers being disposed in globose heads, in lieu of panicles.

From its humble stature and neat growth, it is peculiarly suited for culture in masses; a style of planting showy flowers, which produces a striking effect, where it can be pursued on a tolerably extensive scale. Blank patches, however, the consequence of this method, become somewhat too prominent in small gardens, to be pleasing. The mingled parterre will always arrest attention.

The Gilia tricolor ripens seeds abundantly, which need only to be sown in the borders, in April.

SAPONA'RIA CALA'BRICA.

CALABRIAN SOAPWORT.

Class.
DECANDRIA.

Order.
TRIGYNIA.

Natural Order.
CARYOPHILLÉÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Calabria.	6 inches.	July, Sept.	Annual.	in 1830.

No. 510.

Saponaria, from the Latin sapon, soap, which alludes to a peculiar alkaline, or saponaceous quality, possessed by one or more of the species. Our English soapwort has this peculiarity, whence it has sometimes been called fuller's herb.

This is a delightful little annual, which spreads over the surface of the ground, much in the same manner as Saponaria ocymoides, No. 165. Although its flowers, individually, be small, it forms at a short distance, splendid little patches of gaiety; exhibiting one unbroken rose-coloured tint. It has, hitherto, been introduced to very few gardens; but, having proved so hardy, we hope to see it become a universal favourite. For the fronts of borders, small mounds, or artificial rock-work, it is peculiarly desirable.

The Saponaria Calabrica will flourish in any common soil, or situation; and, generally, produces seed freely, but to guard against disappointment in this particular, a plant or two may be potted, and have protection when required. If sown in the borders, in the latter part of April, it will flower in August, and continue till the setting in of winter.

Don's Syst. Bot. 1, 397.

LA'THYRUS ROTUNDIFO'LIUS.

ROUND-LEAVED LATHYRUS.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Tauria.	2 feet.	June, Sept.	Perennial.	in 1822.

No. 511.

The origin of the word Lathyrus is acknowledged to be of very doubtful origin. It is, by most authors, thought to have been derived from the Greek, LA, to increase, and THOUROS, any thing exciting.

The Lathyrus rotundifolius, which we now introduce to notice, is a showy, free-flowering perennial species, which is very little known; nor is it quite certain through what channel it was introduced to this country. It has long been cultivated in the Oxford Botanic Garden; and there is much reason for supposing that it may have been originally introduced there by Dr. Sibthorpe. If so, it had remained many years without becoming much known to English botanists. It is of lower stature than either the Lathyrus latifolius, (common everlasting Pea,) or the Lathyrus grandiflorus, but of more robust habit than the latter.

The culture of this pea is of the simplest description: it may be increased by division at the root, therefore requires no further care than that of being planted in any common soil. Its seeds are ripened in moderate abundance, from which it may also be propagated.

Don's Syst. Bot. 2, 332.

UVULA'RIA PUBER'ULA.

DOWNY UVULARIA.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
MELANTHACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America.	9 inches.	May, June.	Perennial.	in 1824.

No. 512.

The name, Uvularia, was used by old authors to distinguish a plant, which they used in curing diseases of the uvula. See No. 187. Puberula, from the Latin, downy.

This is a rare and delicate species of Uvularia, made known by Michaux, the French botanist; who found it located, as the Americans themselves would say, on the loftiest mountains of Carolina. It appears to have escaped the notice of most English cultivators, or otherwise has been confounded with sessilifolia. It, certainly, approaches very nearly in character to that species, but its leaves are not glaucous beneath, as in sessilifolia; they are, too, strictly ovate; and also larger than those of its congener. Its corolla, also, is more decidedly bell-shaped.

As the flowering season of the several species of Uvularia precedes that of more general gaiety in the garden, these plants are a desirable appendage to the early parterre. They follow the first glow of spring beauties,—beauties which leave us somewhat deficient in the number of immediate successors; but still in the enjoyment of a season full of fresh-

ness, and the spirit stirring influence of melody and fragrance. Such a time as was referred to by the poet of obscurity—Michael Bruce; who duly appreciated the study of nature. Who valued that study for its own sake. Who valued it for the sake of the eminent examples which had gone before him. He delighted to trace the Almighty cause. He says,

"Now is the time for those who wisdom love,
Who love to walk in Virtue's flow'ry road,
Along the lovely paths of spring to rove,
And follow nature up to nature's God.

Thus Zoroaster studied Nature's laws;
Thus Socrates, the wisest of mankind;
Thus heav'n-taught Plato, trac'd th' Almighty cause,
And left the wond'ring multitude behind.

Thus Ashley gather'd academic bays:
Thus gentle Thomson, as the seasons roll,
Taught them to sing the great Creator's praise,
And bear their poet's name from pole to pole.

Thus have I walk'd along the dewy lawn;
My frequent foot the blooming wild hath worn;
Before the lark I've sung the beauteous dawn,
And gather'd health from all the gales of morn.

Then, sleep my nights, and quiet bless'd my days;
I fear'd no loss, my MIND was all my store;
No anxious wishes e'er disturb'd my ease;
Heav'n gave content and health—I ask'd no more."

Where there is a choice of situation, the Uvularia puberula should be planted in one that is rather moist and shady. This best accords with its alpine habit. The soil should be sandy peat, and it will be found of the greatest importance to its luxuriant growth, that it remain undisturbed.

Sweet's Fl. Gar. 2, 21.

Sedum Ewersii. 1/6

Narcissus incomparabilis. 1/6

Cerastium Biebersteinii. 1/6

Campanula grandiflora. 1/12

SE'DUM EWER'SII.

EWERS'S STONECROP.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CRASSULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Siberia.	4 inches.	July, Aug.	Perennial.	in 1829.

No. 513.

As many species of Sedum grow low and closely upon rocks and walls, they have their name from the Latin sedeo, signifying to sit.

This is a rare and beautiful plant. Its peculiarly glaucous or whitish foliage, gives it a very distinct feature in a collection. We were first introduced to this species in the Birmingham Botanic Garden, an establishment which, under the direction of its experienced curator, Mr. Cameron, is already ranking amongst the most important in Great Britain. Its collection of rare ornamental plants, both arboreus and herbaceous, is scarcely excelled; and in the cryptogamic department, in the order filices, it is, perhaps, second to none.

The increase and culture of the Sedum Ewersii is not difficult. Like most others of this succulent family, which inhabit rocks and dry arid places, it succeeds best in sandy loam, mixed with a small portion of lime rubbish from old buildings. It is very important that these succulent plants should be well drained, and when cultivated in pots, such should be chosen as are soft, to admit the escape of superabundant moisture. Cuttings readily strike root.

Don's Syst. Bot. v. 3, 116.

NARCIS'SUS INCOMPARA'BILIS.

PEERLESS NARCISSUS.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
AMARYLLIDEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Portugal.	1 foot.	April, May.	Perennial.	in 1629.

No. 514.

The British garden is, in spring, as greatly indebted to the genus Narcissus as to any one that ornaments its compartments. Winter is no sooner past, and vernal breezes come, heralded by crocuses and primroses, than the Narcissus minor,—poeticus,—jonquilla, and others of this genus, adjust their golden attire in the green room, and prepare to step on the stage of nature. Showers hasten their approach—They quickly join in the grand spectacle of Flora's drama.

In connexion with this genus we formerly mentioned the name of Haworth, a gentleman who is now no more; but whose suavity of manners, and readiness to communicate information, we assert from experience, must have endeared him to every one with whom he came in contact. Superciliousness and knowledge are but rarely the tenants of an individual mind. Mr. Haworth published a monagraph of Narcissineæ; and this extensive genus, which has about eighty species recorded in British catalogues, he nearly doubled, chiefly by research in the works of old authors. He arranged the whole under sixteen genera, in lieu of one; founding their char-

acters on floral and seminal differences. Amongst those our present plant is his Queltia incomparabilis. We offer no opinion on Mr. Haworth's arrangement, never having had time or opportunity to enter on such enquiry.

Although this gay family is admired by all, and portions of it grown by all, very little attention is bestowed on the detail of the culture of such species as are usually tenants of the open garden; principally because they flourish, regardless of care. Notwithstanding this fact, it is certain that most of the species of Narcissus will reward additional care. Mr. Haworth was a cultivator as well as a scrutinizer of the Narcissus. He says "The roots require transplantation once in three or four years, to take off their offsets, and to encrease them; but if they are transplanted annually, as in Holland, they form the largest, roundest, and finest roots. This may be done as soon as their leaves decay in summer, and not long after, lest they should form new fibres; after which, transplanting would be very injurious; and if they are moved in winter or spring, they are rarely able to flower for two or more years afterwards. After taking them up, the flowering-sized roots may be kept out of the ground dry, like Tulips, a few weeks, or more, if desirable; but they are best planted late in September, except the very early species, which should be planted late in October, as by so retarding them, they more easily escape from frost, pushing later out of the ground. All offsets, and weak bulbs, ought never to be kept out at all, because, drying shrivels and greatly weakens them."

Hort. Kew. 2, v. 2, 215.

CERAS'TIUM BIEBERSTEI'NII.

BIEBERSTEIN'S CERASTIUM.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CARYOPHYLLEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Caucasus.	6 inches.	June, July.	Perennial.	in 1820.

No. 515.

The word, Cerastium, is derived from the Greek KERAS, a horn, which is intended to apply to the form of the capsules of many of the species. The specific name is adopted in honour of Marschall von Bieberstein, a Russian botanist of celebrity.

Amongst the species of Cerastium, which are very numerous, only a few can be considered as subjects well suited to the flower garden. This species, however, is a highly desirable one, which, from the size of its flowers, and the free production of them, becomes very shewy; and it continues its attractions during several weeks.

This, probably, is the true species of De Candolle, but, certainly, not that of Dr. Hooker. Having lost our plant soon after the drawing was made, we are left in a little uncertainty regarding it, but we shall recur to the subject at a future opportunity.

This is a very suitable subject for putting out on artificial rock-work, where it will be kept tolerably dry. It should be frequently divided; or it may be struck from cuttings; and a plant or two should be protected in the cold frame, during winter, as a reserve to meet unexpected losses.

Don's Syst. Bot. v. 1, 445.

CAMPAN'ULA GRANDIFLO'RA.

GREAT-FLOWERED BELL-FLOWER.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAMPANULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Siberia.	1 foot.	June, July.	Perennial.	in 1782.

No. 516.

Of the Campanulas we have figured several, and there are but few in the genus undeserving specific notice. They vary exceedingly in their stature and their flowers, some of them classing amongst the minute alpines, being an inch or two high, and their little bells not the eighth of an inch diameter; whilst others rise to man's stature, decorated with flowers of corresponding importance.

This genus, also, has been subjected to division. By the German botanist, Schrader, our present plant was divided from Campanula, and included in the new genus Wahlenbergia. This change has been abandoned by most authors. According to a new arrangement, by Alphonso De Candolle, depending on the dehiscence or opening of the capsules, the lobes or clefts of the corolla, and other small variations. Campanula now forms several genera, and our plant is the Platycodon grandiflorum of such arrangement. We think it requisite to explain these changes to prevent mistakes.

This plant should be kept with care, in a rather cool situation, in peat and loam, as it increases but slowly at the root, and yields very few seeds.

Don's Syst. Bot. v. 3, 737.

Malva angustifolia. 1/5

Cheiranthus alpinus. 1/5

Iris neglecta. 1/5

Solanum runcinatum. 1/5

E. D. Smith delt

S. Watts sculp

MAL'VA ANGUSTIFO'LIA.

NARROW-LEAVED MALLOW.

Class.
MONOGYNIA.

Order.
POLYANDRIA.

Natural Order.
MALVACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	5 feet.	Aug. Sept.	Perennial.	in 1780.

No. 517.

The generic name, Malva, is traced to the same Greek original, as the Latin mollis, signifying soft. The emollient properties of some species of Mallow, render the name sufficiently appropriate. Angustifolia, from the Latin angustus, narrow; and folium, a leaf.

The French botanist, Hilaire, who has been followed by Mr. G. Don, has made a new genus of the section of Malva to which the present suffruticose subject belongs. He calls it Sphæralcea angustifolia.

This is an upright ornamental species, more ornamental than is indicated by our drawing of it. This occurred from a specimen having been handed to the artist, which had flowered in a pot. In this case it had but a single flower at the axil of each leaf; but in the open border, where we now have it in beauty, it produces a cluster of them, where one only is represented, and from two to four are usually expanded at once.

Although a native of Mexico, we have found it quite hardy, and its suckers, which spread widely under ground, afford sufficient increase.

 Don's Syst. Bot. v. 1, 465.

CHEIRAN'THUS ALPI'NUS.

ALPINE WALL FLOWER.

Class.
TETRADYNAMIA.

Order.
SILIQUOSA.

Natural Order.
CRUCIFERÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. Europe.	1 foot.	May, July.	Perennial.	in 1810.

No. 518.

The Arabic name for a plant, RHEYRY, and ANTHOS, a flower, have been pointed out as the origin of Cheiranthus. Some authors have thought that the Greek KEIR, signifying the hand, may rather be looked on as the root of the former part of the name; thus making its signification hand-flower. It should be remembered that Linneus and others, when botanical light began to brighten upon Europe, only a century or two ago, in preference to inventing new names entirely, adopted numerous old ones. These were bestowed on plants as nearly resembling those to which the ancients had applied them, as could be determined from the very imperfect descriptions of Greek authors. Notwithstanding the polish and learning which are ascribed to the Greeks, especially the Athenians, they certainly possessed no standard botanical nomenclature by which future generations could recognize their plants. This will account for many anomalies and uncertainties, which present themselves, with generic names.

This little Cheiranthus is a pretty ornament, either on rock work, or for pot culture amongst alpines. It flourishes in light loam.

Don's Syst. Bot. v. 1, 154.

I'RIS NEGLEC'TA.

HORNEMAN'S IRIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Uncertain.	2 feet.	May, June.	Perennial.	in 1820.

No. 519.

The word Iris, which is the Greek name of the rainbow, and the Egyptian name of the eye, appears to claim, in its respective applications, the honour of standing sponsor to our present favourite genus of plants. Where uncertainty reigns, difference of opinion must exist. Professor Horneman, the Danish botanist, first noticed the plant before us as a distinct species; and, we presume, called it neglecta, from its having been in cultivation without botanical notice. To this circumstance may be traced our deficiency of information regarding its native country.

It would be needless to say this is a handsome species; the assertion would in no degree characterize it from others of its genus; but when we mention it as a pleasantly scented one, it may claim a trifling preeminence. It does not increase rapidly, but although it may not require division, it will be advantageous to its luxuriance that it be transplanted every second or third year.

The Iris is of so distinct and attractive a character, whether met in the garden of the cottage or the mansion, that we can but recommend its more

general cultivation. The genus offers one advantage, not duly appreciated, perhaps not generally known; which is, that a great number of its species, may be planted very closely together; in fact, crowded, without injury to each other. Fifty may be kept within the compass of a few yards; only observing, every autumn, to cut away a portion of those, which happen to increase too rapidly; and at the same time, to spread amongst them a compost prepared with equal portions of sand and stable manure. Where flower beds are sufficiently distant, or separated by low shrubs, Irises may be planted together, in masses, with good effect. In some situations they may be made subservient to aquatic scenery. Their many-coloured flowers will harmonize every where; but not so their rigid foliage.

Milton did not forget their display of numerous colours. Describing the garden of Paradise, he says,

"Thus talking, hand in hand alone they pass'd
On to their blissful bower: it was a place
Chosen by the sovereign Planter, when he framed
All things to man's delightful use; the roof
Of thickest covert was inwoven shade,
Laurel and myrtle, and what higher grew
Of firm and fragrant leaf; on either side
Acanthus, and each odorous bushy shrub,
Fenced up the verdant wall; each beauteous flower,
Iris all hues, roses, and jessamine,
Rear'd high their flourish'd heads between, and wrought
Mosaic; underfoot the violet,
Crocus, and hyacinth, with rich inlay
Broider'd the ground, more colour'd than with stone
Of costliest emblem."

Bot. Mag. 2435.

SOLA'NUM RUNCINA'TUM.

RUNCINATE-LEAVED NIGHTSHADE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
SOLANEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Chile.	3 feet.	Aug. Oct.	Perennial.	in 1831.

No. 520.

The name of this genus is supposed to have been derived from the Latin solor, to comfort; from the narcotic properties, for which the Solaneæ are distinguished. Runcinatum applies to the largely toothed, saw-like, or pinnatifid leaves.

This new introduction to our gardens is very ornamental as well as novel. It is best suited for training against a low south wall, where it will luxuriate and flower abundantly. As an independent plant, in the borders, it is somewhat too diffuse; and the absence of that excitement afforded by the warmth of a wall, is clearly indicated by a less abundant show of its lively blossoms.

The Solanum runcinatum, trained against a wall, will bear mild winters, and even become somewhat shrubby. In less temperate winters it may be cut down, and it will shoot again in spring. In very severe weather spread a little litter over its roots.

We have stated that the natural order Solaneæ is distinguished for the narcotic properties of the plants of which it is composed. It should be especially remembered, however, that no scientific system, for the classification of plants, has yet been dis-

covered, by which they can be grouped, so as to combine uniformity of botanical character and similarity of medicinal quality. We are induced to notice this subject from the sweeping assertions of some botanists, who rely somewhat too implicitly on the newly-established natural orders, as divisions of the vegetable world, in which a single individual may stand as a likeness of the whole, particularly as respects their properties and powers medicinally. In science, as in common life, we frequently see that a novelty in system or in practice cannot be duly appreciated till time has sobered the enthusiasm of its advocates.

It has been asserted that all the plants belonging to the natural order Solaneæ are poisonous. Now the potato is one of the Solaneæ, the egg plant and the tomato also, each of which form wholesome articles of food. It is not sufficiently satisfactory to say that they are rendered innoxious only by cooking. Other natural orders are in this particular equally anomalous. In the order Labiatæ the pea and bean are not unwholesome, whilst the laburnum is a poison. Amongst the Umbellifereæ, will be found the nutritious carrot and parsnip, and the poisonous conium and cicuta. In this order too, we may oppose the assafœtida to the caraway, and the galbanum to the cummin. Even in a single genus of this order, œnanthe, the roots of one species, crocata, are poisonous, whilst those of another, pimpenelloides are edible. These anomalies we could multiply, but sufficient are stated to prevent too implicit a confidence on any system, as affording divisons indicating uniformity of quality.

Sweet's Fl. Gar. 2, 177.

Schizanthus retusus. ½

Heliophila araboides.

Vescaria neglecta. ½

Cineraria macrophylla. ½

SCHIZAN'THUS RETU'SUS.

RETUSE-PETALLED SCHIZANTHUS.

Class.
DIANDRIA.

Order.
MONOGYNIA.

Natural Order.
SCROPHULARINÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Chile.	2 feet.	June, Aug.	Annual.	in 1831.

No. 521.

The name, Schizanthus, is compounded of two Greek words, SKIZO to cut, and ANTHOS, a flower, in allusion to its cut corolla. Retusus, signifying blunted, marks the character of the segments of the corolla.

This is a beautiful and showy annual, of which we intended treating two years ago, but then we were unable to speak, with confidence, on its culture. Our fate, like that of many other persons, was to see the plants arrive almost at maturity, and then wither and die. Their lives were, indeed, of uncertain tenure. We have submitted this Schizanthus to several modes of treatment, and the following has succeeded completely. Seeds were sown in pots, in March, and forwarded in a temperate hotbed. They were potted separately, whilst very small, and in the course of two or three weeks, turned into the borders. Care was taken to keep their crowns above the soil; and a little sand was placed beneath the crown—a point at which decay usually commences.

It should be observed, that plants which were suffered to remain long in pots, were seldom turned into the borders with success.

HELIO'PHILA ARABOI'DES.

ARABIS-LIKE HELIOPHILA.

Class.
TETRADYNAMIA.

Order.
SILIQUOSA.

Natural Order.
CRUCIFERÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Cape G. H.	9 inches.	June, July.	Annual.	in 1768.

No. 522.

The Greek HELIOS, the sun; and PHILEO, to love, are compounded as a name for the present genus. We are not aware of the name being peculiarly characteristic of this, any more than it may be of a hundred other, genera. De Candolle has made this species a variety only of Heliophila pilosa.

This pretty little plant has long been known to our botanists, as an early-flowering unobtrusive annual. It is equally suited to the decoration of the garden, in distinct masses; or, for mingling with other low herbaceous plants in the varied parterre.

Early-flowering annuals are advantageous or disadvantageous, just in proportion as the cultivator happens to be an adept in meeting the changing circumstances of his garden. If sown early, their blossoms will have faded away, and nothing will remain to tell of their beauty when summer has advanced to its height. If the vacuity be not re-tenanted, the loss will be evident to every visitor of taste, and the desolate spaces, or the remnant of a faded plant, may give rise to sympathies of a nature not intended to be excited in the flower garden. They may call to mind the sentiments of the poet:

"Where are the flowers, the fair young flowers, that lately
sprang and stood
In brighter light and softer airs, a beauteous sisterhood?
Alas! they are all in their graves: the gentle race of flowers
Are resting in their lowly beds, with the fair and good of ours."

W. C. BRYANT.

This must ever be averted. A moderate attention to the flowering season of each plant will enable a very young florist to provide against these garden calamities. He should always be prepared with seedling plants of annuals, or young perennials, raised from cuttings, ready to take the places of such early blossomers as would otherwise be likely to occasion deficiencies in the parterre. It is indispensable, in the gay flower garden, to occupy every hiatus, as it presents itself; and thus to keep up a full variety, that the changeable fairy scene may continue unimpaired. Thus managed, the garden can never fail to yield gratification.

We will name a few desirable showy plants, which may be conveniently kept in readiness, to supply any vacancies as they occur. A plant of each of the following may be obtained early in spring, if they do not happen to be possessed. From these, with the assistance of a hotbed, numerous young plants may be struck, and kept in pots for the purposes mentioned; viz. Calceolaria, several shrubby kinds, particularly integrifolia angustifolia, rugosa, &c.; Fuchsia, every species and variety; Verbena, several species; particularly chamædrifolia, pulchella, radicans, &c. Pentstemon; Anagallis; and Nierembergia. Also plants of Mimulus, Commelina, Œnothera, Stevia, and late flowering annuals.

Don's Syst. Bot. v. 1, 266.

VISCA'RIA NEGLEC'TA.

NEGLECTED ROCK LYCHNIS.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CARYOPHYLLEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Uncertain.	9 inches.	May, July.	Perennial.	in 1807.

No. 523.

The name Viscaria is derived from the Latin, viscus; whence, also, arises the English word, viscid. The name alludes to the clammy glutinous matter, by which the stems of some species of Viscaria are covered. This peculiarity does not apply to the plant now under notice.

It is quite uncertain how long the Viscaria neglecta has been cultivated in British Gardens. Having formerly been considered a variety only of Lychnis viscaria, it received no specific registry. It was commonly known as Viscaria alba, till G. Don distinguished it by the specific name neglecta. It is a neat and ornamental plant for common culture, and its compact green tuft of foliage, during winter, assists in relieving the gloomy aspect of a flowerless border. This is an appearance, however, of which we have little occasion for complaint. The garden's barrenness occasions only such a privation of its beauties as is sufficient to increase our zeal in its culture, whence we derive renewed and augmented pleasures.

It increases freely at the root, and may be divided in spring or autumn.

Don's Syst. Bot. v. 1, 415.

CINERA'RIA MACROPHYL'LA.

LARGE-LEAVED CINERARIA.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Altay Mnts.	8 feet.	July, Aug.	Perennial.	in 1832.

No. 524.

The term Cineraria, is believed to have had its origin from cineres, ashes; and to have been applied in allusion to the colour of the leaves, produced by their downy clothing. The specific name is from MAKROS, large; and PHYLLON, a leaf.

This is, in reality, a plant worthy of its magnificent habitat—the Altay mountains. It is one of the noblest herbaceous subjects we long have met with; and notwithstanding its flowers, individually, are small, the mass of them, displayed, during nearly a month, on a stem eight feet high, emanating from a base of glaucous leaves, each two feet long, produce a most striking effect.

The Cineraria macrophylla flowered in the present year, 1835, in the Birmingham Botanical Society's Garden; having been raised there from foreign seeds. The plant, as we are informed by Mr. Cameron, the Curator, was three years old before it blossomed. At present, it possesses no appearance of offsets, for increase at the root. Should this still continue, it will be unimportant, on account of the facility of its increase by seeds. It appears to be completely hardy; and flourishes in light soil.

Rhodochiton volubile. ½

Lathyrus Armitageanus. ½

Momordica elaterium. ½

Centrocarpha chrysomela ½

RHODOCHI'TON VOLU'BILE.

TWINING RHODOCHITON.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARINÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	15 feet.	July, Oct.	Perennial.	in 1834.

No. 525.

Rhodochiton, from the Greek RHODOS, red; CHITON, a garment; in allusion to its calyx.

This novel plant is, by Mr. D. Don, considered to be a species of Lophospermum, and is called by him Lophospermum rhodochiton; whilst Dr. Graham contends for its legitimate generic difference. Its flowers, in description, certainly, much resemble those of Lophospermum, but it must be admitted, that besides other floral distinctions, the five-cleft calyx of our present plant stands much at variance with the herbaceous, parted, calyx of Lophospermum. Since botanists have, unfortunately, no laws of consanguinity to guide vegetable alliances, these decisions must remain but matter of opinion.

This very slender and rapid climber possesses a lightness and an elegance not excelled by any that we have seen. Its flowers are far from brilliant; their profusion, however, and their unfading calyces, in pendulous display, form beautiful rows of fairy bells, which lightly wave to the passing breeze.

Cuttings should be struck in Autumn, protected through winter, and planted against a wall in May. Our plant has not produced seeds.

LATH'YRUS ARMITAGEA'NUS.

MR. ARMITAGE'S LATHYRUS.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Brazil.	8 feet.	June, Aug.	Shrub.	in 1829.

No. 526.

Lathyrus was a generic name, in use amongst the Greeks. Theophrastus applied it to a plant evidently not unlike our own Lathyrus. Armitageanus has been deservedly adopted as a specific name, in honour of the late J. Armitage, Esq. a zealous and accurate scientific botanist; by whose exertions, combined with those of the late Dr. Darwell, the Birmingham Botanical and Horticultural Society may be said to have originated.

A single plant of this shrubby species of Lathyrus was raised by C. H. Cope, Esq. from seeds collected in Brazil; and from a cutting presented by him, in 1833, to the above society, the species has not only been preserved, but also liberally distributed to other establishments. It is a native of Brazil, and it appears also to be indigenous about Buenos Ayres, W. Borrer, Esq. having recognized it as identical with one which he raised, a few years ago, from seeds collected there.

This species approaches nearer to magellanicus, than to any other that has been described, but differs from it by its stipules being narrower, not broader, than the leaflets; shrubby, not annual; glaucous,

not blackish; as De Candolle describes magellanicus. It may be further observed that in Lamarck's description of Lathyrus magellanicus, as given in Wildenow's Species Plantarum, it is stated that the plant turns black, in drying, like the Orobus and European species of Lathyrus; but, says F. Westcott, Esq. to whom we are indebted for the particulars regarding this species, "so far from this being the case, with my plant, the specimen, in my herbarium remains as glaucous as when first gathered, and its colour not in the least changed. Lamarck too, of his plant, says, it is a foot high, and a little branched; mine is, at least, eight feet high, and much branched."

The glaucous hue and rigid texture of the leaves, most of which are retained during winter, give a pleasing appearance to this plant, when trained against a wall. It appears to be perfectly hardy; and is readily increased by cuttings of the ripened branches, and by seeds. Soil, a light sandy loam.

Not having possessed this plant, in flower, our figure was taken from an admirable drawing of it by Mr. Linneus Pope, of Handsworth.

Mr. Westcott, one of the Honorary Secretaries of the Birmingham Botanical and Horticultural Society, first named this species, and as doubts are said to have existed whether it may not be identical with Lathyrus magellanicus, we will annex that gentleman's specific character—

L. Armitageanus. Westcott. Caulibus ramosis trigonis non alatis. Foliis unijugis, foliolis ovatis coriaceis glaucis mucronatis, margine cartilagine. Stipulis latis cordato-sagittatis folio minioribus, cirrhis 3 fidis, pedunc. sub 3 floris purpureo-cærulei.

MOMOR'DICA ELATE'RIUM.

SPIRTING CUCUMBER.

Class.
MONŒCIA.

Order.
MONADELPHIA.

Natural Order.
CUCURBITACEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
S. Europe.	4 feet.	June, July.	Perennial.	in 1548.

No. 527.

The name, Momordica, is supposed to have been derived from mordeo, to bite, the seeds having the appearance of being bitten. Elaterium, according to modern authors, is from the Greek, ELATER, a driver, in allusion to the peculiar action of the elastic seed vessels of the plant under notice. This, however, does not appear to be the origin, or at least, the application, of the word, since it was applied, by Hippocrates, as a name, to drastic purgatives generally; and is said, by Dr. Paris, to have been deduced from the word, ELAUNO, to drive, or urge.

This plant has the name of spirting cucumber, from a peculiarity, shown by its seed vessel, on being picked from its footstalk. This has not, unfrequently, been a source of amusement to the young botanist, by surprising those who are unacquainted with the plant. On the ripe fruit being touched, so as to move it but a little, it instantly discharges a volley of seeds and fluid, perhaps into the face of the unsuspecting intruder on its repose. This peculiar action has been explained, by Dutrochet, as the effect of endosmosis, a process which he explains in his theory of the motions of fluids in plants. He

says, as stated in Dr. Lindley's Introduction to Botany, that if two fluids, of unequal density, are separated by a membrane, the denser will attract the less dense, through the membrane. This propensity he calls endosmose, when the attraction is from the outside to the inside; and exosmose, when it operates from the inside to the outside. Thus, it is considered that the fluid of the placentary matter in this fruit gradually acquires a greater density than that which surrounds it, and begins to empty the tissue of the pericarpium: as the fruit increases in size, the same operation continues to take place; the pulpy matter in the centre is constantly augmented in volume at the expense of the pericarpium; but, so long as growth goes on, the addition of new tissue, or the distension of old, corresponds with the increasing volume of the centre. At last growth ceases, but endosmosis proceeds; and then the tissue that lines the walls of the central cell is pressed upon forcibly by the pulp that it encloses, until this pressure becomes so violent that rupture must take place somewhere."

Elaterium has been well known from remotest antiquity. It subsides, spontaneously, from the thinner parts of the juice of the fruit of this plant, and is dried for use. The eighth part of a grain of this preparation proves violently cathartic. Its active principle, called elatin, has been separated: this constitutes less than one tenth part of its substance.

Momordica elaterium, will grow in any common garden soil. If once established, so as to ripen seeds, whether considered annual or perennial, there will be but little danger of its being lost.

Don's Syst. Bot. v. 3, 36.

CENTROCAR'PHA CHRYSO'MELA.

YELLOW AND DARK CENTROCARPHA.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
S. America.	2½ feet.	July, Sept.	Perennial.	in 1821.

No. 528.

The generic name, Centrocarpha, is deduced from the two Greek words, KENTRON, a sharp point; and KARPHE, chaff. It has reference to the sharp bristley points which terminate the chaff of the receptacle. Chrysomela, from CHRUSOS, gold; and MELAS, dark; in allusion to the golden yellow colour of the ray, and the dark colour of the column.

This plant has been known in the gardens, as Rudbeckia Newmanii, and is usually admired for its conspicuous gaiety, and for the long continuance of its flowers in perfection. These gradually grow, and as gradually assume their true colours; the ray from green to yellow, the column from green, through brown to black.

We have met with varieties of this plant, having somewhat broader leaves, less hairy, and with flower stems more slender. They grew near each other, or their difference may have passed unobserved.

This species of catrocarpha is not only shewy, but is most easy of management. It increases freely at the root, and may be divided at any time from September to May; or, indeed, in the summer, with a little extra caution.

Diplocoma villosa. ⅓

Sollya heterophylla. ⅓

Astragalus Monspessulanus. ⅓

Lilium longiflorum. ⅓

DIPLOCO'MA VILLO'SA.

VILLOUS DIPLOCOMA.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	3 feet.	July, Oct.	Biennial.	in 1826.

No. 529.

The generic name, Diplocoma, is deduced from the Greek DIPLOOS, double; and KOME, hair. It refers to the double pappus or down, attached to the seeds of Diplocoma.

This is a showy, free flowering, plant, well suited to the ornamental garden, and one that is at present rarely met with, even amongst the best collections. It requires no peculiar attention in culture, excepting the protection of a frame, in winter. It has been considered perennial, but although it may sometimes survive its second year's growth, it should be regarded, in cultivation, only as biennial.

The name of this plant, as already observed, refers to a certain hair-like appendage of the seeds; which in various species of plants will oftentimes be seen to display great variety and delicacy of formation. On looking at these feathers, scales, hairs, or whatever shape such appendages to the seeds may assume, it would seem to require but a modicum of curiosity to induce the enquiry—"For what purpose were these intended?" We sincerely hope that we have not been disappointed in our endeavours to excite a similar question, over and over again, in

the minds of our younger readers, and thereby awaken attention, not alone to the beauties, but to the wonders, of vegetable forms and purposes, which are so continually before our eyes. We are happy to have been a humble labourer in that field which the late Earl of Bridgewater so piously desired should be cultivated—a field that shall clearly demonstrate "The Power, Wisdom, and Goodness, of God, as manifested in the creation."

Evidences of design and wisdom strike the mind of the observer at every step he takes in this beautiful field of nature; and the ingenious contrivances for the dispersion of seeds stand not last in the convincing catalogue. Instances of this occur in the commonest plants. The globular head of down displayed by the dandelion is universally known; but let it be examined—its delicate structure duly estimated—and its utility understood. Its seed is surmounted by a capillary stipe or pillar, which bears on its extremity, a star of down, so buoyant that it rides through the air as a miniature balloon; wafting its little car, with the embryo plant, to a distant spot, which it may colonize, and there propagate its species. The thistle has its down attached to the seed without the intervention of the pillar. Some seeds have a simple dilated membranous wing, as in the fir. Others are crowned with a single feather, or numerous feathers, or a membranous parachute; each, however, having the same object in view. These contrivances are highly curious, and each alone displays wisdom and care in the preservation of the works which have come perfected from the hand of our all-wise Creator.

Sweet's Flo. Gar. 246.

SOLL'YA HETEROPHYL'LA.

VARIOUS-LEAVED SOLLYA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PITTOSPOREÆ.

Native of	Height.	Flowers in	Habit.	Introduced
N. Holland.	6 feet.	July, Sept.	Shrub.	in 1830.

No. 530.

This genus has been named in honour of R. H. Solly, Esq. F. R. S. a mark of respect judiciously adopted by Professor Lindley. Heterophylla, from HETEROS, various; and PHYLLON, a leaf. Allusion is here made to a somewhat anomalous shape of the leaves of this species, and to an occasional serrature of their edges.

This is a slender evergreen shrub, which assumes somewhat of a twining habit. Its corymbs of beautiful blue flowers hang droopingly on their delicate peduncles; and although not partaking of the character of splendid, they are very ornamental. The plant should be trained against a wall, and is nowhere more advantageously placed than by the side of a door-way. Here its foliage and flowers will attract the attention they deserve.

The Sollya heterophylla should be planted in light loam; or in loam, mixed with a little peat. In some situations it has proved sufficiently hardy to bear our winters, but to guard against contingencies, it should have a slight protection, in severe weather. It may be propagated from seeds, or from cuttings of the young shoots.

Bot. Reg. 1466.

ASTRAG'ALUS MONSPESSULA'NUS.

MONTPELIER MILK-VETCH.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
France.	1 foot.	June, July.	Perennial.	in 1710.

No. 531.

Astragalus is a name which was used by Dioscorides; and applied, it is believed, to our Orobus vernus. It has several significations in the Greek language, as a bone of the foot, a vertebral bone, and a die, to play with. The connexion between any of these, and the plant under consideration, we are unable to explain.

This is one amongst the humble but engaging subjects of the flower border, which only requires to be seen well established in its beauty, to be remembered with pleasure. It will soon form a compact tuft, of a foot in diameter, producing abundance of flowers, and defying the most fastidious to accuse it of one vagrant or straggling habit. It is a suitable plant for growth on artificial rock work, where it will be displayed with greater advantage than on the low parterre.

Although the Astragalus Monspessulanus has been known in England more than a hundred years, it is by no means commonly met with. It may be raised from seeds, or divided at the root, when increase is required; or cuttings may be struck under a hand-glass.

Don's Syst. Bot. v. 2, 270.

LIL'IUM LONGIFLO'RUM.

LONG-FLOWERED LILY.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
TULIPACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
China.	1 foot.	June, July.	Perennial.	in 1820.

No. 532.

LEIRION, of the Greeks, whence our Lily of the New Testament, is the name of a plant which cannot, now, be identified.

It were almost needless to offer a remark in commendation of any species of Lily. They are, every one of them, objects of beauty, even in the estimation of the most uncultivated mind. This species, which is not very generally known, produces its bold and elegant flowers at the termination of its stem; sometimes one, and sometimes two. It is not excelled in delicacy, and elegance of shape, by any species with which we are acquainted.

Our plant has grown, for three years, in common earth, and has never exceeded a foot in height; but, in light peat, we are informed, it has been known to attain the height of two feet. Where peat is not of easy access, the soil, for the Lilium longiflorum, should be rendered light and dry, by an admixture of sand. It is, sometimes, kept in pots, for the convenience of protection in the cold frame, which it may probably require in very severe winters. It does not increase much, but occasionally offset bulbs may be removed.

Bot. Reg. 560.

Fuchsia macrostema ⅓

Cosmea bipinnata . ⅓

Lobelia fulgens-cærulea . ⅓

Gladiolus Natalensis . ⅓

FUCH'SIA MACROSTE'MA. Var. Globosa.

GLOBE-FLOWERED FUCHSIA.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ONAGRARIÆ.

Hybrid Variety.	Height. 2 feet.	Flowers in June, Oct.	Habit. Shrub.	Origin. Unknown.

No. 533.

The generic name, Fuchsia, is derived from that of a celebrated physician and botanist of Germany, Leonard Fuchs, or Fuchsia, who was born in 1501. He is principally known to the botanical world, through his Historia Plantarum, published at Bazil, in 1542, a folio volume, containing upwards of five hundred wood-cuts, which are said to possess considerable merit. In the history of his time Fuchsia is known as a zealous follower of Luther, which introduced him to Ulrick, Duke of Wirtemberg, under whose auspices he lived many years at Tubingen, and there died, in 1560. Macrostema alludes to the lengthened stamens of this species.

This very beautiful variety of a most beautiful genus of plants, alike valuable in the greenhouse and open garden, has by many botanists been considered a distinct species, and called Fuchsia globosa; it certainly, however, is simply a seedling variety. We think with Mr. D. Don, that it may have originated from macrostema; it is not, however, certain that macrostema itself is more than a garden variety. In the British Flower Garden, Mr. Don says "The proneness to vegetation, evident in

this, as well as in the species of many other genera of South American plants, has convinced me that Fuchsia gracilis and conica, are not entitled to be regarded in any other light than as mere varieties of Fuchsia macrostema." As a circumstance corroborative of this opinion, and decisive against any claim our present variety may be supposed to possess as a distinct species, we have but to mention, that amongst plants which we raised last year, 1835, from seeds of the globe-flowered variety, was one of character near to gracilis; its calyx lobes equally acute, but a little shorter in proportion to its petals; its leaves less remotely denticulate. The flowers of the parent were not artificially fertilized.

The figure of the globe-flowered variety which occupies a place in our present plate, was taken from a seedling which was raised with that referred to above. One circumstance to which we with pleasure advert in the culture of these seedlings is, that the seeds which were sown in a hotbed at the end of March, produced plants which flowered in October. Hence, in a space of time, little exceeding twelve months, we may have the gratification of pursuing experiments in the hybridization of Fuchsias, and of witnessing the fulfilment of our pleasurable anticipations.

We sincerely hope that the admirers of Fuchsias will pay attention to the propagation of seedling varieties of this genus. Some hints will be found under Azalia pontica, No. 261, which may be useful. It is important that such a course should be pursued, to obviate existing doubts regarding species and varieties.

Don's Syst. Bot. v. 2, 677.

COS'MEA BIPINNA'TA.

DOUBLY-PINNATE-LEAVED COSMEA.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	3 feet.	Aug. Sept.	Annual.	in 1799.

No. 534.

The name, Cosmea, is derived from the Greek, KOSMOS, signifying handsome. Although Cosmea, as a generic name, has been long established, a late author has adopted the Greek name more literally, by calling it Cosmos—an alteration, to say the least of it, without improvement. Its leaves have much variation of division; the lower ones, however, are chiefly twice pinnate.

The scarcity of the Cosmea bipinnata, may be presumed to arise from its seeds being ripened very sparingly in England. In warmer parts of Europe it is otherwise. When grown, in perfection, it is an elegant garden ornament, and as it continues in perfection nearly two months, it amply repays a little extra attention.

The only difficulty that can occur, in the culture of this plant, arises from the necessity of early sowing, if it be intended to blossom in the borders before winter commences. It should be sown in a pot, early in March, forwarded in a hotbed, transplanted, two or three plants into each pot, gradually hardened, and turned into the borders early in May. Retained in pots it will blossom earlier.

Hort. Kew. 2, v. 5, 132.

LOBE'LIA FUL'GENS-CÆRU'LEA.

HYBRID LOBELIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
LOBELIACEÆ.

Hybrid Variety.	Height. 3 feet.	Flowers in June, Sept.	Duration. Perennial.	Originated in 1832?

No. 535.

The Flemish botanist, Lobel, is commemorated in the generic name before us. Lobel was extensively known in the sixteenth century, both in England and on the continent; and his work, the Stirpium Adversaria, will long retain his name amongst those of the first promoters of the science.

This handsome variety of Lobelia has been called speciosa; but as we dislike attaching what may appear as a direct specific name, to a hybrid plant, we now, as previously, compound the names of the probable parents, to indicate its origin. It is said, by Sweet, on the authority of Mr. Mackay, to have been discovered, in a garden, in Ireland, amongst Lobelia fulgens and Lobelia cærulea.

The Lobelia fulgens-cærulea is a very lovely addition to the brilliant species which have proved such perpetual favourites. Under Lobelia fulgens, No. 73, we have given a mode of culture, which continued experience has proved to be unrivalled. Repotting, several times, through a gradation of sizes; very rich light compost, and a continual supply of water, form the great desiderata for producing this plant in the greatest perfection.

Don's Syst. Bot. v. 3, 708.

GLADI'OLUS NATALEN'SIS.

NATAL CORN-FLAG.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEÆ.

Native of Natal.	Height. 4 feet.	Flowers in August.	Habit. Bulb.	Introduced in 1830.

No. 536.

This generic name is derived from Gladius, a sword. A single glance at its leaves determines its application. Natalensis refers to a part of Africa, where it is found indigenous, called Natal. It forms part of the Cape colony, and was discovered on Christmas Day—the natal day of our Saviour, hence its name. It was first known as Gladiolus psittacinus.

This certainly is one amongst the most splendid plants that can be considered as belonging to our hardy flower compartment; and which, doubtless, from its beauty and increase, will ere long, become a general favourite. Its strong tall stems, its long flower spikes, and exquisitely streaked and spotted flowers, claim for it attention and admiration.

It is sufficient that it be planted in a rich light soil, in the open border, in Spring, and taken up again in the autumn. The bulbs, after being gradually dried, may be wrapped in paper and preserved through winter. One strong bulb will produce half a dozen large, and a multitude of small ones. The latter we prefer keeping in pots of soil, in a cool cellar.

Bot. Mag. 3032.

Rhodanthe Manglesii. ½

Calliopsis tinctoria. ½

Linum flavum.

Œnothera densiflora. ½

RHODAN'THE MANGLE'SII.

CAPTAIN MANGLES'S RHODANTHE.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Swan River.	18 inches.	June, July.	Annual.	in 1833.

No. 537.

The generic name, Rhodanthe, is compounded from the Greek RODON, a rose; and ANTHOS, a flower, in allusion to its delicate rosy blossoms. Manglesii, as a specific name, was adopted in compliment to Robert Mangles, Esq. in whose garden, at Whitmore Lodge, it was first cultivated in this country; having been raised from seeds sent from Swan River, by Sir James Stirling.

This is a delightful little plant, one which from its beauty and delicacy, at once engages the affections and secures a friend in every acquaintance. It is of very slender growth, and partakes much of the dry character of helichrysum. Mr. Mangles who kindly sent us a plant and seeds, doubts not its fitness for border culture, as a tender annual. For such purpose it should be sown in spring, in a hot-bed; and whilst the plants are young, they should be potted singly; and repotted as occasion may require. After having been gradually inured to the open air, they should be turned into a warm border, with their balls of earth unbroken. Young plants raised in autumn, and duly protected through the winter months, will flower early and luxuriantly.

CALLIOP'SIS TINCTO'RIA.

Var. atrosanguinea.

ARKANSA CALLIOPSIS.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America.	3 feet.	July, Oct.	Annual.	in 1823.

No. 538.

Calliopsis is derived from the Greek KALLISTOS, signifying most beautiful; and OPSIS, sight. Tinctoria applies to the colour afforded by its corolla.

The fine rich hue of this flower, spread as it is, sometimes, over the whole corolla, at others, rendered the more striking by a brilliant edging of gold, makes this variety peculiarly suitable for mixing with the prevailing yellow tints of autumn. The original variety of this plant, published under No. 13, is liable, in some situations, to lose its beautiful eye. Where it does so, the present one may be introduced advantageously with it, to display a contrast of colouring. It should, however, be remembered that if this and the common variety be mingled together, and seeds gathered from such mixed varieties, that it is almost certain their distinctions will soon be lost. The genus Coreopsis has been divided, and our Coreopsis tinctoria, No. 13, will now be found in Loudon's Hortus Britannicus, as Calliopsis bicolor.

This variety, the atrosanguinea, is just as hardy as its congener; seeds of which may be sown both in autumn and spring.

Bot. Gard. No. 13.

LI'NUM FLA'VUM.

YELLOW FLAX.

Class.
PENTANDRIA.

Order.
PENTAGYNIA.

Natural Order.
LINEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Austria.	9 inches.	June, July.	Perennial.	in 1793.

No. 539.

The Greek LINON, signifying flax or cotton, is usually esteemed as the origin of our Linum; although it has, sometimes, been referred to the Celtic Llin, a thread. See No. 14.

This is one amongst the many plants introduced years ago, to this country, which seems to have escaped the observation of the generality of the lovers of gay hardy perennials. Its flowers, which are produced freely, in succession, give a very lively effect to the parterre; and its foliage and habit are of the character most desirable, if neatness be a desideratum in the flower garden. The Linum flavum has, not unfrequently, been neglected from an idea that it is not sufficiently hardy to encounter our severe and variable winters, but this impression is erroneous; and if it were not so, cuttings of the young shoots strike root so readily in the summer, and may be kept in pots, in a shed or harbour, in such perfect health, that it would still be a desirable addition to the open flower garden. It is said to ripen seeds, but this has not occurred with our plants. As it never grows high or straggling, it should have a place near the front of the border.

This species of Linum, although of habit and character so distinct from that of Linum usitatissimum, or common flax, has some affinity therewith in the fine glossy fibre of its interior bark. When this is cleared of its exterior woody matter, and placed under the microscope, it exhibits the brightness of polished silver. This brightness is one of the characteristics in which fine linen articles so far excel those of cotton.

It has long been a subject, of anxious enquiry, whether or not the ancient Egyptians really were acquainted with the manufacture of garments from flax. The term LINON, amongst the Greeks, seems to have had indiscriminate application to articles manufactured of cotton or flax, and it has been wholly through the aid of the microscope, that this question has been determined.

An admirable article appears in the 24th number of the Philosophical Magazine, on this subject, wherein it is shewn, by Mr. Baur, that numerous specimens of cloth, which had been taken from the envelopes of mummies, had been manufactured from flax alone. This Mr. Baur clearly determined by microscopic observation of the shape of the fibres of both flax and cotton. That of flax he ascertained to be cylindrical, straight, and jointed, like a cane; that of cotton, a peculiarly flattened tube, collapsed most in the middle, so as to assume the shape of a double tube; which, subsequently, became twisted, corkscrew like. So permanently are these forms retained, as to be distinguishable even in a sheet of paper. We hope to pursue this interesting subject still further at a future opportunity.

Don's Syst. Bot. v. 1, 452.

ŒNOTHE'RA DENSIFLO'RA.

CLOSE-FLOWERED ŒNOTHERA.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ONAGRARIÆ.

Native of	Height.	Flowers in	Duration	Introduced
California.	3 feet.	July, Sept.	Annual.	in 1831.

No. 540.

The derivation of Œnothera has been previously noticed. The application of the specific name of our present plant, will be evident from a single glance at its densely-flowered spikes.

Seeds of the Œnothera densiflora were first sent to this country by Mr. Douglas, the London Horticultural Society's collector in America. The plant, in its habit, is unlike that of Œnothera; it partakes of that of epilobium, and in botanical character approaches the genus gaura. It cannot lay claim to the same admiration which some other species of Œnothera command—its flowers are far less splendid, but its tall and upright growth render it a suitable ornament for the back of the border and other positions, where the other species would be useless. It is thus that almost every plant offers its usefulness in the garden, just as individuals, in society, are each of them advantageous to the community, whilst employed in the stations to which they really belong.

This annual is of the easiest culture. It should be sown in spring, but a few plants may be raised in autumn, for early flowering.

Bot. Reg. 1593.

Azalea nudiflora. 1/3

Potentilla mollissima. 1/2

Veronica exaltata. 1/3

Trientalis Europæa. 1/6

AZA'LEA NUDIFLO'RA.

NAKED-FLOWERED AZALEA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
RHODORACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
N. America.	3 feet.	May, June.	Shrub.	in 1734.

No. 541.

This name, deduced from the Greek AZALEOS, dry, was applied by the ancients, it may be presumed, to some inhabitant of arid situations. Linneus called this species nudiflora, from the nakedness of the shrub, when flowering; it being, at that period, almost devoid of foliage. This variety is generally distinguished by the name carnea.

Of the species, nudiflora, there are not less than fifty named varieties, many of them possessing very distinct differences, independently of the colour of their flowers. There are, indeed, very few shrubs which exhibit the variety of character shown by seedlings of the Azalea nudiflora; and the facility with which it hybridizes with other species, will extend its anomalies, and be productive of not a little confusion in the genus. Amongst them may be found double and semidouble, as well as single, flowers; and all shades of colour between clear white and deep red; besides striped, variegated, and purple.

It should not be omitted to be noticed that the genus Azalea is, by some authors, almost deprived of an existence amongst the living tribes of plants. Procumbens is the only species left to constitute

this a distinct genus. They have all merged into Rhododendron, and not without much apparent occasion for the change. The original separation, by Linneus, of Azalea from Rhododendron, depended on the respective numbers of their stamens; Rhododendron having ten; whilst Azalea has five only. This discrepancy of inflorescence placed them in very different classes in his system—the one in pentandria, the other in decandria. These two genera have no other distinction that is worthy of notice. Instances, like this, in which kindred plants are widely separated in systematic arrangement; and opposite cases, in which heterogeneous subjects are joined under the same class, induced modern botanists to search the more assiduously for a foundation whereon to build a new arrangement, that should be more dependent on the physiological structure and natural affinities of vegetables.

Linneus, notwithstanding he had employed a great portion of his life in the completion of his artificial system, was desirous of arriving at a better. In a letter to his friend Haller, in reply to an observation unfavourable to this classification, he says "Far be it from me ever to uphold artificial arrangements, as if they were in any measure comparable to natural ones. I wish we knew more about natural classes." Indeed, he left what he called fragments of a natural order; but it is not surprising that in the infancy of the science, as it then existed, he could not develope any natural arrangement satisfactory to his own comprehensive mind.

Azalea nudiflora requires the usual treatment of such plants. Peat is indispensable to their success.

Hort. Kew. 2, v. 1, 319.

POTENTIL'LA MOLLIS'SIMA.

SOFT-LEAVED POTENTILLA.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of	Height.	Flowers in	Duration	Introduced
Europe?	18 inches	July, Sept.	Perennial.	in 1832.

No. 542.

For derivation of Potentilla, see 385. The specific name, mollissima, has been chosen as descriptive of its soft foliage, arising from its silky villose covering.

This very free-flowering and showy Potentilla is of late introduction, having been raised from seeds, transmitted from the Berlin garden. We have some doubt whether this, which has been quoted after Lehman, be a distinct species; it certainly approaches near to Potentilla Thomasii of Tenore, and probably may be the identical plant.

Frequent difficulties exist, from the want of living or dried specimens, or from variations of character, to prevent the determination of distinct species of plants; more difficulty, however, may still be anticipated amongst the great number raised from seeds, ripened in Botanic Gardens. In these gardens, scientific arrangement is adopted, and numerous species of one genus are crowded together; hence it is certain, that frequently one species will be fertilized by another, and intermediate varieties will become more and more numerous.

The Potentilla mollissima ripens seeds: it requires no peculiarity of management.

VERON'ICA EXALTA'TA.

LOFTY SPEEDWELL.

Class.
DIANDRIA.

Order.
MONOGYNIA.

Natural Order.
SCROPHULARINEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Siberia.	4 feet.	July, Aug.	Perennial.	in 1816.

No. 543.

The derivation of many generic names, borrowed as they have been, from the most ancient languages, is involved in uncertainty. Their original signification becomes matter of speculative opinion. An endeavour, however, to catch their meaning and application is by no means uninteresting, though it be sometimes unsuccessful. Veronica is one of this uncertain class, which, as the name of a plant, cannot be referred to any authentic source. See Nos. 167 and 294.

The Veronica exalta is a well-marked and distinct species, which is far from being the case with many of this extensive genus. It is a plant of elegant growth, and its handsome spikes of blue flowers are very ornamental; equal if not superior to any Veronica with which we are acquainted. In the early stage of tea-drinking, in this country, one species of Veronica—the officinalis, was much recommended as a substitute for the Chinese plant; but the competition with its exotic opponent was of short duration.

The Veronica exaltata does not increase very freely, but may, notwithstanding, be divided every autumn. A light soil will encourage its growth.

TRIENTA'LIS EUROPÆ'A.

EUROPEAN WINTER-GREEN.

Class.
HEPTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of Britain.	Height. 4 inches.	Flowers in May, June.	Duration. Perennial.	Inhabits Woods.

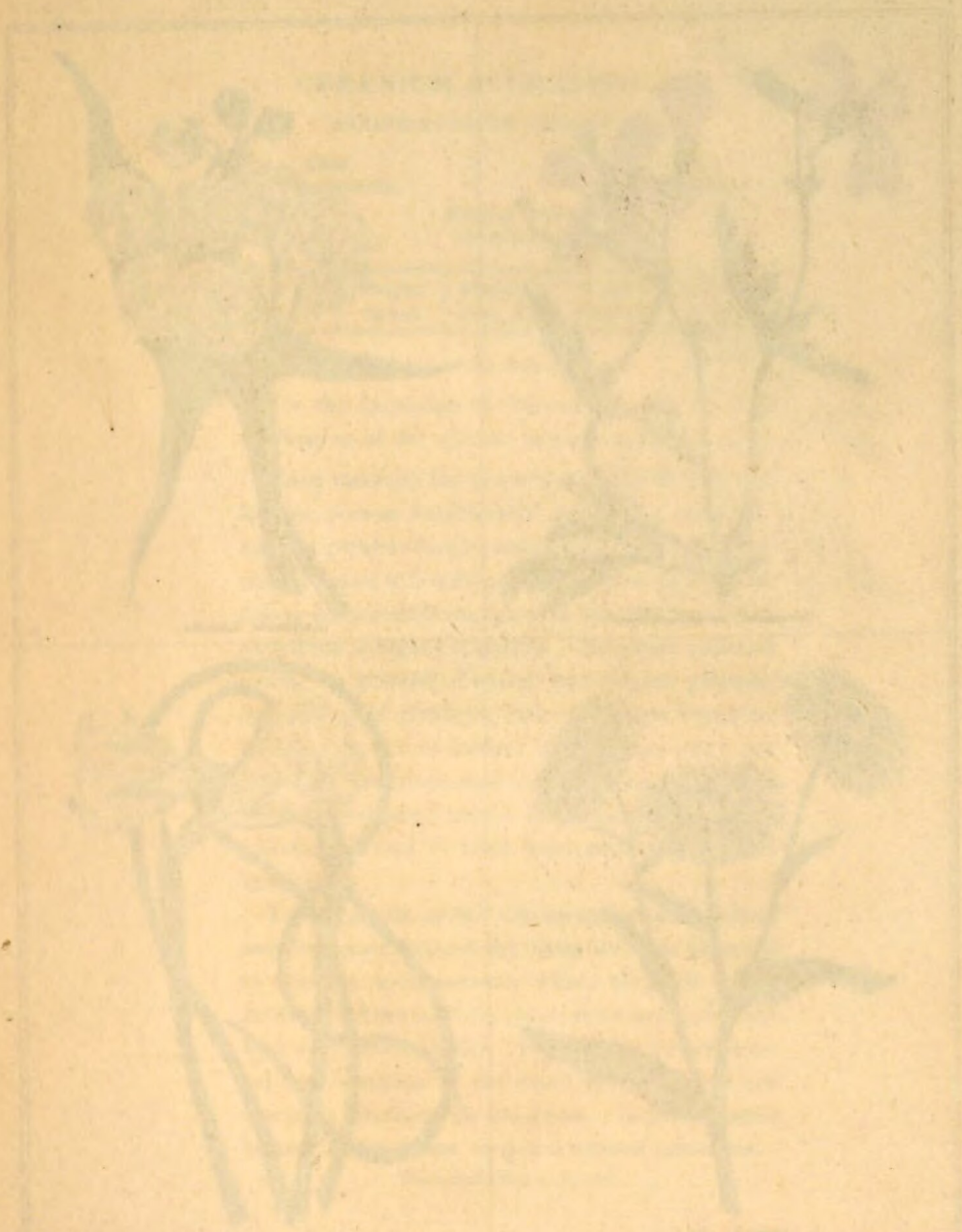
No. 544.

The name, Trientalis, was first given to this plant by Bauhin; but he used the word as an adjective, calling it herba trientalis, significant of its small size; perhaps he intended to indicate its being the third of a span in height. Linneus found it in Lapland, and named it Trientalis Europæa.

Linneus's expressions of delight regarding it show very vividly the warmth of his feelings. He considered it a most fascinating little subject; but how many amongst us, on the contrary, seek fascinations only in more specious characters; yet there are minds endowed with chasteness of feeling—with admiration of vegetable beauty in its simplest attire, which, imbued with a little enthusiasm, enjoy a flow of pleasure unknown to souls insensible of the higher grade of intellectual emotions.

In the Highlands of Scotland, this plant grows abundantly under the shade of trees, and attains the height of ten or twelve inches; but on exposed heaths, it is very diminutive. It should be potted in a mixture of fine heath soil, with a third part of sharp sand; or in the same description of soil, on a shady border.

Hort. Kew. 2, v. 2, 333.



Geranium anemonefolium. ⅓

Sagittaria latifolia. ⅓

Stenactis speciosa. ⅓

Narcissus bulbocodium. ⅓

GERA'NIUM ANEMONEFO'LIUM.

ANEMONE-LEAVED CRANE'S BILL.

Class.
MONADELPHIA.

Order.
DECANDRIA.

Natural Order.
GERANACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Madeira.	$2\frac{1}{2}$ feet.	June, Aug.	Perennial.	in 1788.

No. 545.

For the derivation of Geranium, see 484. The application of the specific name is self-evident.

Many amongst the Geraniums, both British and foreign, possess considerable gaiety, but their foliage is superabundant in comparison with their flowers; the same will hold good in relation to the Geranium anemonefolium, but with this difference, that its foliage is highly beautiful. Its glossy softened green; its graceful disposal, and elegant palmate, and pinnatifid divisions, make the plant attractive in flower or out of flower; but perhaps every one would be first impressed with a pleasurable sense of its smoothness; indeed its original specific appellation is said to have been expressive of this quality.

Young plants of the Geranium anemonefolium may be raised from seeds; these we once observed to vegetate spontaneously where they fell in the autumn, and the seedling plants remained uninjured by a very severe winter. It may also be propagated from cuttings of the small sprouts, which are sparingly produced on the stems. A plant should be kept in the frame, to guard against casualties.

 Don's Syst. Bot. v. 1, 716.

SAGITTA'RIA LATIFO'LIA.

BROAD-LEAVED ARROWHEAD.

Class.
MONŒCIA.

Order.
POLYANDRIA.

Natural Order.
ALISMACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America.	1½ feet.	July, Sept.	Perennial.	in 1816.

No. 546.

The name, Sagittaria, is deduced from the Latin Sagitta, an arrow; the application of which will be evident on inspection of the shape of its leaves.

If it were not that aquatics have yet to claim their due portion of attention from the flower-loving public, we should be surprised that the Sagittaria latifolia, has not been, long ago, figured and published; and also met with in every aquarium or garden pond, of the least pretension to respectability. On the contrary, although so desirable an ornament, it is scarcely known in Great Britain.

The double variety of this plant, from which our drawing was made, grew in the aquarium of the Birmingham Botanic Garden. Here it lifted its arrow-headed leaves, and delicate double white blossoms above the surface of the water, and could be easily imagined to court observation, whilst it defied spoliation.

This aquatic should be planted from six to eighteen inches beneath the surface of the water, in a rather strong loam. Here it will spread its tubers around; and by a division of these, it may be readily increased.

STENAC'TIS SPECIO'SA.

SHOWY STENACTIS.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration	Introduced
California.	2 feet.	July, Oct.	Perennial.	in 1831.

No. 547.

The name, Stenactis, seems to be of somewhat uncertain origin. Mr. Denson, in the Gardener's Magazine, suggests that it may have been derived from STENE, narrow; and AKTIN, a sunbeam, in allusion to the sun-like figure of the flower, with its numerous narrow rays emanating from a yellow disk.

A single specimen of this beautiful plant does it much discredit. It is in the borders alone where it can be duly appreciated. There, with its multitude of flowers, it is really specious, and although by comparison of individual blossoms of the Stenactis and asters, which it so much resembles, the latter would seem most attractive, still the general effect in the garden, is decidedly superior. It was transmitted to the London Horticultural Society, by Douglas, from its native habitat, California.

It is perfectly hardy, and thrives in any common garden soil. May be divided at the root for increase; and according to Dr. Lindley, admits of culture from seeds, as an annual, flowering in the first season of its growth, which we should not have anticipated.

Bot. Reg. 1577.

NARCIS'SUS BULBOCO'DIUM.

HOOP PETTICOAT.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
AMARYLLIDEÆ.

Native of	Height.	Flowers in	Habit.	Cultivated
Portugal.	4 inches.	April.	Bulbous.	in 1629.

No. 548.

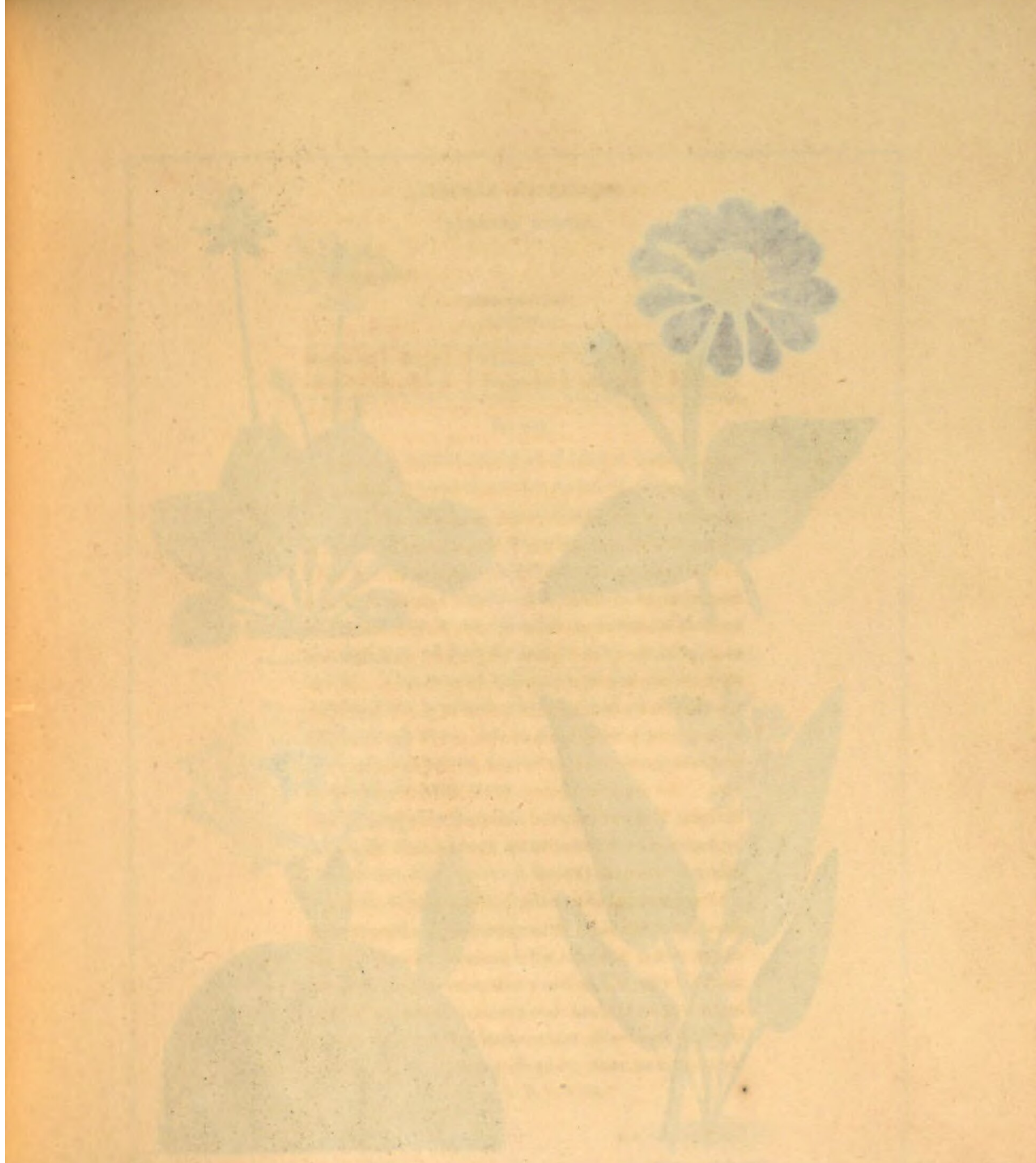
The generic name is derived from NARKE, signifying stupor; alluding to the effects of the Narcissus. Ancient names are in common use amongst botanists, but it rarely happens that the descriptions of the ancients are sufficiently explicit to admit of their plants being recognised. In reference to Narcissus, however, it is pretty certain that they applied the name to our species poeticus, therefore we look for the truth of their opinion implied in its signification. As a general principle, we believe it to be admitted by most persons of experience, that the perfume of flowers, in a room, may be so powerful as to operate injuriously on the brain. The late president of the Linnean Society, Sir. J. E. Smith, says he could himself bear witness that the smell of Narcissus, and some other sweet flowers, is productive of headache and partial loss of recollection. In our northern latitude an offensive effluvia of any kind is greatly abated by the lowness of temperature. In Italy perfumes about the person, and flowers in apartments, are entirely rejected; not we presume, from the superior sensibility of Italian noses, but from the more powerful effect of

odours when communicated through a rarified atmosphere. In man the sense of smell is less important than the sense of taste; but the contrary is the case with many of the lower animals, particularly those of a predacious character.

"It is exceedingly difficult, says Dr. Roget, to conceive how matter so extremely rare and subtle as that which composes these odorous effluvia can retain the power of producing any sensible impression on the animal organs: for its tenuity is so extraordinary as to exceed all human comprehension. The most copious exhalations from a variety of odoriferous substances, such as musk, valerian, or assafœtida will be continually emanating for years, without any perceptible loss of weight in the body which supplies them. It is well known that if a small quantity of musk be enclosed for a few hours in a gold box, and then taken out, and the box cleaned as carefully as possible with soap and water, that box will retain the odour of musk for many years; and yet the nicest balance will not show the smallest increase of its weight from this impregnation. No facts in natural philosophy afford more striking illustrations of the astonishing, and indeed inconceivable divisibility of matter, then those relating to odorous effluvia."

Our present subject the Narcissus bulbocodium, does not stand peculiarly prominent in regard to its odour, either pleasant or offensive; it is chiefly remarkable for its nectary being so extended as to resemble, at first sight, a corolla. Planted in the borders, in any light common garden soil, it will blossom luxuriantly, but does not increase rapidly.

Hort. Kew. 2, v. 2, 218.



Zinnia elegans. ½

Parnassia Caroliniana. ½

Pontederia cærulea. ½

Opuntia vulgaris. ½

ZIN'NIA EL'EGANS.

ELEGANT ZINNIA.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Mexico.	2½ feet.	July, Sept.	Annual.	in 1829.

No. 549.

Zinnia is a name established after a German botanist and anatomist of the name of Zinn. The The name violacea, in lieu of elegans, has sometimes been used; but as well as paradoxical, it is of subsequent adoption to elegans.

This variety of the Zinnia elegans is an ornament in the garden of so splendid a character that we are desirous of introducing it more generally to notice. The intense brilliancy of the colour that it sometimes produces exceeds that of any flower we have ever seen; but it should be observed that it occurs of various depths of tint; the pale scarlet being the most vivid.

It is probable that this beautiful variety originated in Mexico, whence seeds were first imported by the London Horticultural Society. It has been distributed, subsequently, from the Continent.

It should not be forgotten that although only annual, it may be increased by cuttings, taken before the stem has become too hard and woody. Seedlings, forwarded by artificial heat, should be removed into a cold frame, soon after they are up; and transplanted to the borders when an inch high.

PARNAS'SIA CAROLINIA'NA.

CAROLINA PARNASSIA.

Class.
PENTANDRIA.

Order.
TETRAGYNIA.

Natural Order.
SAXIFRAGEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N.America.	6 inches.	June, July.	Perennial.	in 1802.

No. 550.

Parnassia is a name given to this genus of plants after the celebrated Mount Parnassus of Greece, on account of the common species being believed to be the Grass of Parnassus, described by Dioscorides, perhaps before the christian era. These associations of plants are by no means the least gratifying portion of botanical pursuits. Who can look, with feeling of apathy, on a plant which ancient Grecians, perhaps Pindar himself, may have lingered over on the very brink of the Castalian spring. Here, beside the Parnassia, he may have courted the muses, fanned his poetic flame, and gathered that fire from the heights of Hyampea, which still shines in his inimitable Lyrics.

The Parnassia Caroliniana, is a larger plant than our own species, the palustris, No. 195. Its stamens have the same peculiarity of action—approaching to, and receding from, the style, which has been noticed under Parnassia palustris. From their size in each of the species, their difference of position becomes the more obvious and interesting.

This species should have a slight protection in winter. See Auctarium, section 70.

Don's Syst. Bot. v. 1, 348.

PONTEDE'RIA CÆRU'LEA.

BLUE PONTEDERIA.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
PONTEDEREÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America.	2 feet.	August.	Perennial.	in 1830.

No. 551.

The present genus was named by Linneus, in compliment to Julius Pontedera, who was professor of botany at Padua, and a strenuous opponent of the sexual system of the great Swede.

This plant is known in cultivation as the species cærulea. From the unexpected loss of the specimen from which our drawing was taken, we are unable to determine whether or not it be more than a variety of cordata. When the plant flowers again this shall be noticed.

It is a desirable aquatic, and requires no further care than planting in a pond, a foot beneath the water; or it may be kept in a pot, plunged in a cistern, having change of water. A small oval cistern, laid with bricks, and lined with Roman cement, with a supply and waste pipe may be readily constructed in almost every garden; and would afford many advantages in connection with the culture of plants in pots, and convenience also for watering those in the borders. In such a cistern the present and other hardy aquatics may be grown with success. It may be propagated by division of its roots, and should be planted in clay.

OPUN'TIA VULGA'RIS.

COMMON OPUNTIA.

Class.
ICOSANDRIA.

Order.
MONOGYNIA.

Natural Order.
CACTEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
S. Europe.	2 feet.	July, Aug.	Perennial.	in 1596.

No. 552.

This genus is said to have been named after the ancient Opuntians, a people who occupied a district in the Morea.

The Opuntia vulgaris, formerly called Cactus not opuntia, is frequently met with in the open borders, a place to which we are desirous it should be generally introduced. In our northern latitude there are but few plants of the natural order Cacteæ, of which the cultivator of hardy plants can avail himself for ornament; it were then unwise to neglect such as freely offer him their assistance, by weathering all seasons. We have cultivated the Opuntia vulgaris for several years in the open ground, and from two or three stem lobes of which it at first consisted, it has increased to sixty, covering a circle of two feet diameter. We do not mention this as successful culture of the plant; it is, simply, proof of its growth without much care.

In the second volume of the Horticultural Transactions is a communication from J. Braddick, Esq. which we think more important than our own experience. Mr. Braddick says "The first plant that I turned out has lived in the open ground of this

country for six or seven years, and in all except the two first years, it has never failed to ripen its fruit and seeds, so that it may be now considered decidedly naturalized. It is now growing vigorously; and although the present season has been exceedingly unfavourable, yet I doubt not but it will produce a plentiful crop of flowers, and ripen its fruit fit for the table during the course of the next month.

The compost used by me for growing the Cactus Opuntia, is the following: one half is carbonate of lime, for which lime rubbish from old buildings will answer; the remaining half consists of equal portions of London clay and peat earth, having the acid neutralized by barilla: these are intimately blended and sifted. One square yard of this compost I conceive to be sufficient for one plant, which must be placed in the middle of a small artificial hillock, raised eighteen inches above the surface of the ground, which ground should be rendered perfectly dry, if not naturally so, by under-draining. Neither the leaves, flowers, nor fruit should ever be suffered to touch the ground, but they should as constantly as they are produced, be kept from the earth by placing stones, pebbles, flints, or bricks under them in imitation of artificial rock-work."

In warm climates the fruit of the Opuntia vulgaris is freely eaten, and considered wholesome. Its flavour, however, is not very agreeable, till use has produced for it an acquired partiality.

If cuttings of this plant, be laid to dry for a week or two, and then planted, they strike root readily. A rich soil is now found to suit this tribe of plants better than old mortar and loam.

Don's Syst. Bot. v. 3. 175.

Escallonia rubra. ⅓

Teucrium fruticans. ⅓

Scutellaria lupulina. ⅓

Iberis Tenoreana. ⅓

ESCALLO'NIA RU'BRA.

RED-FLOWERED ESCALLONIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ESCALLONEÆ.

Native of Chile.	Height. 4 feet.	Flowers in September.	Duration. Perennial.	Introduced in 1827.

No. 553.

Escallonia, after Escallon, a Spanish traveller. The Escallonia rubra is an ornamental and valuable addition to our small shrubs, both for the flower garden, and for the foreground of the shrubbery. Trained against a wall or trellis its neatness is exhibited to great advantage; indeed its slender stems, being well covered with neat foliage, and bearing abundance of flowers during the summer, are peculiarly suitable to this mode of growth. Our miniature sketch of the whole plant is not given as an indication of its natural habit; for left to nature it emits numerous long slender branches from the lower part of the plant, and becomes a somewhat spreading bush. It was drawn from a plant which we had pruned to form a standard, and in such state its drooping branches have a picturesque effect.

In a light and dry soil this shrub has proved perfectly hardy; still it would be incorrect to assert that it will live uninjured by severe frosts in all situations. If, however, in the depth of winter, loose litter be spread round the plant, its roots will be protected, and from these it will shoot again with vigour. It may be increased by layers or cuttings.

Don's Syst. Bot. v. 3, 193.

TEU'CRIUM FRU'TICANS.

SHRUBBY GERMANDER.

Class.
DIDYNAMIA.

Order.
GYMNOSPERMIA.

Natural Order.
LABIATÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Spain.	3 feet.	June, Sept.	Perennial.	in 1640.

No. 554.

The generic name, Teucrium, is of ancient origin, and whether it was derived from the name of a Trojan prince, or eastern country, is not certain.

The Teucrium fruticans, planted either in the borders, or trained to a wall, is sufficiently conspicuous to attract notice and to afford pleasure. The dense white down which clothes its stems and the inferior surface of its leaves, gives to it a distinguishing character amongst other plants, and produces an acceptable variety in the borders.

In England it cannot be fully exposed through the winter, without injury; although in the Botanic Garden of Trinity College, Dublin, we have seen it ten feet high, trained to a wall. Here, however, as at Edinburgh, notwithstanding latitude, many plants bear the open air, which will not do so in the midland counties of England. The sea, from its contiguity, equalizes the temperature.

Cuttings of Teucrium fruticans should be struck in the summer, under glass. The plants may be kept in pots, and be protected in a cold frame during winter; and they will flower abundantly in the borders, in the following summer.

Hort. Kew. 2, v. 3, 336.

SCUTELLA'RIA LUPULI'NA. Var. bicolor.

TWO-COLOURED WOLF SCULL-CAP.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
LABIATÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Tartary.	9 inches.	June, Sept.	Perennial.	in 1739.

No. 555.

Scutellaria, see No. 397. Lupulina, from lupus, a wolf; in allusion, we presume, to its so covering the soil, where it spreads, as to destroy any plants it may happen to grow over.

There are two varieties of this species of Scutellaria, both of which are beautiful plants for the garden. Spreading on the surface of the ground, and rooting as they proceed, yielding abundance of flowers during the latter part of summer, they become most desirable plants for the foreground of borders; and as respects cultivation, they demand little attention. Cuttings may be struck under a hand-glass in any part of the summer; but great luxuriance and increase will be obtained by dividing and replanting the old roots, every spring or autumn, taking care to cover the stems pretty nearly to their ends.

The calyx of the Scutellaria has a formation peculiar to itself, which claims the attention even of the common observer. The seeds in most plants, have a vessel allotted expressly to their own protection, possessing such peculiarities for that purpose as may be best adapted to the habit of

the plant. In this, the requisite protection is effected differently. When the flower falls, the calyx closes over the naked seeds, and shields them from injury. Its shape is most singular, being nearly that of a helmet with a crest. When the seeds become ripe they are not discharged by the opening again of the original orifice of the calyx, but by the separation of the little dish-like superior appendage of the helmet.

We oftentimes imagine that the numerous peculiarities of organization exhibited in the works of creation, stand out as so many reflections on the indolence of the human mind in the consideration of a Creator. They are marks of omnipotence, prominent every where, to arrest man's attention, and ask a moment's meditation on the first great cause. Professor Stewart beautifully says, "When a man has succeeded, at length, in cultivating his imagination, things, the most familiar and unnoticed, disclose charms invisible to him before. The same objects and events, which were lately beheld with indifference, occupy now all the powers and capacities of the soul; the contrast between the present and past, serving only to enhance and to endear so unlooked-for an acquisition. What Gray has finely said of the pleasures of vicissitude, conveys but a faint image of what is experienced by the man, who after having lost, in vulgar occupation and vulgar amusement, his earliest and most precious years, is thus introduced, at last, to a new heaven and a new earth."

"'Tis this that makes the barren waste appear
A fruitful field, each grove a paradise."

Hort. Kew. 2, v. 3, 427.

IBE'RIS TENOREA'NA.

TENORE'S CANDY TUFT.

Class.
TETRADYNAMIA.

Order.
SILICULOSA.

Natural Order.
CRUCIFERÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Naples.	6 inches.	June, July.	Perennial.	in 1822.

No. 556.

Iberia, whence has arisen the term Iberis, is an ancient name for the country now called Spain. The specific name is derived from that of Professor Tenore of Naples. He is the author of a Neapolitan Flora, in four volumes, folio, published in 1811.

Several species of Iberis are well known, as the sempervirens, No. 82; the saxatilis—a similar but smaller plant; and the umbellata, or annual candy tuft. These will be remembered as being very ornamental, and the Tenoreana is not less so. It spreads its humble branches near to the soil, and like many individuals of another class, possesses more worth and ornament than the majority of such as assume a higher aspect.

It will flourish in any light rich garden earth, but the most luxuriantly in sandy peat; and in this, as its flowers continue expanded, they assume a more decided change from clear white to a pink hue, than in common soil. If these be sown under a south wall in autumn, they will produce plants that will flower in the following June. If sown in spring, they will flower in Autumn: or, it may be increased from cuttings, taken in spring or August.

Don's Syst. Bot. v. 1. 94.

Bulbocodium vernum. ½

Cheiranthus tenuifolius. ½

Aponogeton distachyon. ½

Pinguicula grandiflora. ½

BULBOCO'DIUM VER'NUM.

SPRING BULBOCODIUM.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
MELANTHACEÆ.

Native of	Height.	Flowers in	Habit.	Cultivated
Spain.	4 inches.	February.	Bulb.	in 1629.

No. 557.

The two Greek words, BOLBOS, a bulb; and KODION, wool, are compounded in the present instance, to indicate the woolly or fibrous coating of the bulb.

This plant has long been known by English botanists, and is described by Gerard, Parkinson, Miller, and others; it is, notwithstanding, of rare occurrence. Flowering, as it does, in the same season as the crocus, and having much the same appearance, it would be overlooked by the common observer. Its bulbs and leaves are, however, altogether dissimilar, and its flowers will be found to contain six stamens in lieu of three. Each root most frequently produces two flowers, as in our figure, but sometimes only one. Unless it be in frosty and very favourable weather, they continue long in beauty.

The Bulbocodium vernum cannot be considered as thoroughly hardy in our climate, but the simplest means would suffice to protect it. Its bulbs increase slowly, and the young offsets may be removed every second or third year. This should be done soon after the decay of their leaves, and if requisite, the bulbs may be kept out of the ground, a few weeks in a dry state.

Hort. Kew. 2, v. 2, 231.

CHEIRAN'THUS TENUIFO'LIUS.

FINE-LEAVED WALL-FLOWER.

Class.
TETRADYNAMIA.

Order.
SILIQUOSA.

Natural Order.
CRUCIFERÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Madeira.	15 inches.	May, June.	Perennial.	in 1777.

No. 558.

For the derivation of Cheiranthus, see No. 518. Tenuifolius, from the Latin tenuis, signifying thin or slender; and folium a leaf.

The Wall-flower, as the cheerful emblem of spring, is the welcome attendant on the mansion and the cottage; and to the crumbling battlement of decaying strength and grandeur, it seems to be the natural and sympathizing companion. Phillips says, 'In floral language the Wall-flower stands as the emblem of fidelity in misfortune, because it attaches itself to the desolate, and enlivens the ruins which time and neglect would otherwise have rendered terrible. It hides the savage strokes of feudal times on the castle walls, fills the space of the wanted stone in the mouldering church, and wreaths a garland on the crumbling monument no longer noticed by friendly relatives.

The present species of Cheiranthus is rarely met with, notwithstanding its clear yellow flowers are very pleasing. Our drawing was taken from a seedling plant, raised in the open ground, in the preceding autumn; and was, of course, more diminutive than one of mature growth.

Don's Syst. Bot. v. 1. 154.

APONOGE'TON DISTA'CHYON.

TWO-SPIKED APONOGETON.

Class.	*Order.*
HEXANDRIA.	TRIGYNIA.

Natural Order.

FLEURALES.

Native of	Height.	Flowers in	Duration.	Introduced
C. G. Hope.	6 inches.	May, July.	Perennial.	in 1788.

No. 559.

The generic name, Aponogeton, is said to be compounded from the Celtic APON, water; and the Greek GEITON, neigbour, significant of its place of growth, Distachyon is derived from the Greek DIS, twice; and STACHYS, a spike, in allusion to its double spiked flower.

Aponogeton distachyon is an aquatic plant, which was retained as an inhabitant of the tank or aquarium in the greenhouse for many years. It is deserving of such situation, and its native climate would, of course, indicate the propriety, of such protection. On being planted out in the open pond, it was soon however observed to luxuriate, increase, and become a most desirable ornament. In the aquarium of the Birmingham Botanic Garden, whence our specimen was obtained, it appears to have propagated itself spontaneously by seed, and shown itself as an aquatic that may become completely naturalized amongst us in such waters, as in winter, are never frozen to the bottom. Its clear white flowers are not only beautiful, but they are also deliciously scented, having the almond-like odor of Tussilago fragrans.

We are happy in having a opportunity of figuring a few of the most superior of the hardy aquatic plants, doubting not, but some of our readers will avail themselves of such advantages as they possess for the culture of this neglected class of floral ornaments. If, in the garden or shrubbery, water be present, to adopt some portion of it to aquatics is but carrying out the general design of the whole. To neglect this, is to leave one space to nature, whilst the hand of the cultivator is sedulously employed around it. Water is universally acknowledged to be one of the most interesting features of a landscape. It yields its degree of pleasure even on the smallest scale. Our inimitable Milton could not even picture Eden without water—

'Which through veins
Of porous earth with kindly thirst updrawn,
Rose a fresh fountain, and with many a rill
Watered the garden.'

Again, how brilliant a picture this element contributes to make, when flowing into its composition from the mental fountain of the same admirable poet.

———'From that saphire fount the crisped brooks,
Rolling on orient pearl and sands of gold,
With mazy error under pendent shades
Ran nectar; visiting each plant, and fed
Flowers worthy of Paradise,———
Both where the morning sun first warmly smote
The open field, and where the unpierc'd shade
Imbrown'd the noon-tide bow'rs.—Thus was this place
A happy rural seat of various view.'

The Aponogeton distachyon should be planted in clay, immersed in water, about eighteen inches.

Hort. Kew. 2, v. 2, 331.

PINGUI'CULA GRANDIFLO'RA.

LARGE-FLOWERED PINGUICULA.

Class.
DIANDRIA.

Order.
MONOGYNIA.

Natural Order.
LENTIBULARIÆ.

Native of	Height.	Flowers in	Duration.	Inhabits
Britain.	3 inches.	April, May.	Perennial.	Irish Bogs.

No. 560.

Pinguicula is derived from the Latin pinguis, signifying fat; a name which was adopted on account of a greasy appearance which is more especially seen on the leaves of Pinguicula vulgaris. The same circumstance occasioned the application of the common name, butterwort, which has been applied to this genus.

The Pinguicula grandiflora is one amongst the most rare of British plants, and it is also of equally rare occurrence in other parts of Europe. Independently of its scarcity, which none will deny, contributes to invest a plant with interest, the Pinguicula grandiflora is particularly attractive. In autumn its foliage decays, and the plant exists as a little bulb, formed of small closely arranged scales; early in spring, these extend themselves into a tuft of foliage, forming a neat base to the slender stalk that gradually elevates its single flower.

It should be remembered that this plant is impatient of removal, whilst in an active state of growth, unless the mould about its roots be kept entire. February is the month in which it should be repotted. See Auctarium, No. 69.

Loudon's Ency. of Pl. 20.

Rosa alba. 1/6

Coreopsis verticillata. 1/3

Dracocephalum altaiense. 1/3

Lysimachia dubia. 1/3

ROS'A AL'BA.

CELESTIAL ROSE.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of	Height.	Flowers in	Habit.	Cultivated
Crimea.	5 feet.	June, July.	Shrub.	in 1597.

No. 561.

The word, Rosa, has been traced back to the Celtic Rhodd, signifying red, whence, has been deduced, the Celtic rhos, a rose; the Greek RHODON; and various other words, all more or less significant of a red colour, conformably with the original. It may appear paradoxical to call our present species Rosa alba, or white Rose, but such name having been established for the original plant of the species, to alter it now would assist in producing confusion of nomenclature. The delicacy of tint possessed by this species, its airy lightness, and its beauty have, we presume, obtained for it the popular appellation celestial.

If it be necessary to say that a rose is beautiful, such may be truly said of this variety of the Rosa alba. Like other roses, it flowers the most profusely when budded upon a different variety; and when trained as a standard, its celestial character, if the term be allowed, is exhibited the most advantageously. Buds should, however, be occasionally renewed, being liable to premature decay. Pruning very freely will sometimes be indispensable. This should be effected in the winter.

141 Don's Syst. Bot. v. 2. 577.

COREOP'SIS VERTICILLA'TA.

WHORL-LEAVED COREOPSIS.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N.America.	4 feet.	Aug. Sept.	Perennial.	in 1759.

No. 562.

The fancied resemblance of the seeds of this plant to an insect gave occasion for the use of the name Coreopsis. The Greek words CORIS, OPSIS, are compounded, signifying a bug, and appearance. The Latin verticillum, signifying a little whirl, affords an appellation for the species, which alludes to the position of its leaves round the stem of the plant.

The genus, Coreopsis, is one of considerable gaiety, and as well as that of its congener, Calliopsis, belongs entirely to the western hemisphere. Their prevailing colour, as well as that of several allied genera, is yellow; and they take a prominent part in furnishing the golden tints of the flower garden.

Coreopsis verticillata is nearly related to tenuifolio, No. 62, but is of much stronger growth; it is, moreover, readily distinguished by its dark coloured disk, whilst that of tenuifolia is of the same colour as the ray.

It may be multiplied by division at the roots; indeed, occasional division, in spring or autumn, is quite necessary to keep the plant in a healthy state of growth.

Hort. Kew. 2, v. 5, 133.

DRACOCEPH'ALUM ALTAIEN'SE.

ALTAIAN DRAGON'S HEAD.

Class.
DIDYNAMIA.

Order.
GYMNOSPERMIA.

Natural Order.
LABIATÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Georgia.	9 inches.	July, Aug.	Perennial.	in 1787.

No. 563.

The word, Dracocephalum, is deduced from the Greek, and is literally translated in the name Dragon's-head. It has an allusion to the flower, perhaps before it expands. The specific name, Altaiense, is derived from the Altay mountains—an immense mountain-range of four or five thousand miles in length, extending along the northern portion of Asia. These mountains rival the most extensive in the world, and in many instances their granitic heads pierce the clouds, and are encompassed by regions of eternal snow.

The Dracocephalum Altaiense is known, in the nurseries, as Dracocephalum grandiflorum; but the latter species is an entirely different plant, having smaller flowers, and is only of annual duration. Our present species is very showy, and a suitable ornament for artificial rock work, where it can be protected from the ravages of snails, which is a work of no small difficulty. All circumstances considered, it will be the most conveniently cultivated in pots, with the alpines. The compost for it should be sandy loam, or a mixture of loam, peat, and sand. It may be divided in spring or autumn.

Hort. Kew. 2, v. 3, 420.

LYSIMA'CHIA DU'BIA.

DOUBTFUL LOOSE-STRIFE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Levant.	2 feet.	Aug. Sept.	Biennial.	in 1759.

No. 564.

The name, Lysimachia, is compounded of the two Greek words, LUSIS MAKES, which signify the dissolution of strife,—hence the English appellation. It is believed that the name was not deduced immediately from the original words, for the purpose of being applied to any plant; but adopted, in botany, after a celebrated king of Thrace, of the name of Lysimachus. Whether its regal sponsor discovered its habitation, or some virtue in the original herb, is not quite certain. Some such circumstance has been the alledged reason for the honour intended the warrior king. Seeing that kings could indulge in the quiet pursuit of botany and the art of healing, it may be presumed their subjects, at that period, demanded far less of their regal influence than at the present day. It must not, however, be forgotten that great allowance should be made for the figurative language of oriental poets. What plant was the Lysimachia or Loose-strife of Pliny is now uncertain, nor would the knowledge of it perhaps be considered very important, notwithstanding the historian's declaration that its calming virtues are so very efficient. He

says, that when oxen will not draw together, but strive against each other, if a piece of the plant be laid on their yokes it will stay or loose their strife, and make them agree.

These are fancies at which we may now smile, but they tend to lead the man of contemplative mind into a review of human nature, as it existed at a period past by; and a comparison of former and present knowledge of the divine laws by which the world is governed. Such examination cannot fail to open a wide field of enquiry, of peculiar interest not alone to the philosopher, but to every one who remembers the words of the poet,

'The proper study of mankind is Man.'

The Lysimachia dubia, is an ornamental plant, which is rarely met with, even in good collections. It is, notwithstanding, an old inhabitant of English gardens, having been cultivated by Miller, who gives minute instructions for its culture. Some of his observations are useful. After directing how the plants should be raised on a hotbed, which is mere routine, he says, When they are fit to remove, plant each in a separate pot, plunging them in a moderrate hotbed to forward their taking new root; after which gradually inure them to bear the open air; into which remove them the beginning of June, and let them remain there till October; when they should be removed into a common frame, where they may be sheltered from frost in winter, but always enjoy the free air in mild weather. The spring following, some of the plants may be planted in borders; but a few should be put into larger pots, where they may flower and seed.

Hort. Kew. 2, v. 1, 314.

Caprifolium pubescens. ♑

Dryas octopetala. ♑

Baptisia Australis. ♑

Rubus spectabilis. ♑

CAPRIFO'LIUM PUBES'CENS.

PUBESCENT HONEYSUCKLE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAPRIFOLIACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Canada.	10 feet.	May, June.	Twin. shb.	in 1822.

No. 565.

The name, Caprifolium, is compounded from the Latin capra, a goat, and folium, a leaf, The application of the name to the plant is metaphorical —goats are climbers, and so are honeysuckles. The common name, honeysuckle, probably originated in the juvenile practice of sucking the honey from the corolla. Linneus when he established the genus Lonicera, divided it into sections, of which Jussieu made distinct genera. Caprifolium nearly represents Linneus's first section of Lonicera, with flowers sessile, in terminating heads or whorls, and stems twining.

Caprifolium pubescens is a very ornamental species, suitable for training to a wall, up trees, or spreading on a trellis; in either of which situations it may be advantageously displayed. Or if it be more desirable to have it growing independently of support, it may be cut back so as to form a dense bush, and under such treatment it will produce a profusion of flowers.

It will be difficult for some of our readers to forget the delicious perfume of the wild honeysuckle. Climbing to the top of the smoothly cropped

hedge, and thence protruding its many mouths to breathe out its fragrance to every passer by; or as Mason says,

——— " To hang on barren boughs remote,
Her wreaths of flowery perfume,"

it is sure to acquire that favour which our exotic beauty, Caprifolium pubescens, can never claim, for we regret to observe, it is scentless. When we see the casket, we think of the jewels; this, as Capt. Marryat makes Stapleton say, is but "Human nature." It were better, however, to curb our expectations, search out the good that exists, and with Blackmore say,

" How useful all! how all conspire to grace
Th' extended earth, and beautify her face."

The Caprifolium pubescens, like all others of the same genus, may be increased readily by layers. These should be made from the young shoots, and laid down in autumn or early in the spring. The straggling tops should be removed, and by the following autumn they will have taken root, and should then be cut off from the parent plant, and put out where they are intended to remain, or into a nursery to be trained for standards. This may be done by fixing stakes to the stems of each plant, to which the principal stem should be fastened, all the others being cut off; training each to the intended height, when they should be shortened to induce the production of lateral branches, and these be again stopped to prevent their growing too long. By constantly repeating this they may be formed into standards, and made ornamental, independent members of the shrubbery community.

Don's Syst. Bot. v. 2. 577.

DRY'AS OCTOPET'ALA.

EIGHT-PETALED DRYAS.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of Britain.	Height. 4 inches.	Flowers in June, Aug.	Duration. Perennial.	Inhabits Alp. rocks.

No. 566.

Dryas is a name established by Linneus from the Dryades—fabulous nymphs of the woods. To these sylvan deities the oak, called by the Greeks DRYS, was held as sacred, and the resemblance of the leaves of Dryas to the oak gave occasion for this poetical allusion.

Dryas octopetala is one amongst the prettiest of alpine plants, but is not always cultivated with success, unless it be kept in a pot, and have a little protection in severe winters and shade in the summer. It grows most abundantly on some of the Scotish mountains; and its delicately white flowers, and its evergreen dark shining foliage, render it beautiful in the eye of the botanist; although the Scotish agriculturist would joyfully dispense with its presence. As well as in several parts of Great Britain, it is found in Lapland and Siberia; and on the Jura mountains, at an elevation of five thousand feet above the level of the sea.

We have seen it flourish delightfully in a well-protected shady corner, planted in sandy peat; and by annually laying its outside branches, which root readily, it has become a most luxuriant bed.

Don's Syst. Bot. v. 2, 525.

BAPTI'SIA AUSTRA'LIS.

SOUTHERN BAPTISIA.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
LEGUMINOSÆ.

Native of N.America.	Height. $2\frac{1}{2}$ feet.	Flowers in June.	Duration. Perennial.	Introduced in 1758.

No. 567.

The present generic name, Baptisia, is derived from the Greek BAPTO, to dye. The term may be considered as applying more immediately to the species called tinctoria, which is indigenous to a wide region of North America, extending from James's Bay to the Gulf of Mexico. From the Baptisia tinctoria indigo was produced, previously to the use of the Indigofera tinctoria for that purpose. The Baptisia Australis has been successively considered as belonging to the genera Sophora and Podalyria.

This is a very hardy and desirable plant; its foliage possessing neatness and a softened green hue, and its flowers depth of colour, well calculated to produce effect in the borders. It is requisite that the plant remain two or three years undisturbed, to attain strength, or it will not flower freely; indeed, weak plants frequently do not flower at all.

It will flourish in any common garden soil; but flowers best in that which is rich, light, and deep. Increase may be obtained by division of the roots; or, it may be raised from seeds, which are frequently ripened, and should be sown in the spring.

Don's Syst. Bot. v. 2. 113.

RU'BUS SPECTA'BILIS.

SHOWY BRAMBLE.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Columbia.	4 feet.	May, June.	Decid.shrub.	in 1827.

No. 568.

Rubus, like Rosa, is derived from the Celtic language; the word RHODD or RHUDD, signifying red, being the root of these, and a numerous offspring of other words.

This species of Rubus was raised in the London Horticultural Society's Garden, from seeds collected in North America. It had previously been figured in Pursh's Flora of that country, and the delineation and description there given excited considerable interest in behalf of the young plants. No objects of equal purity excite the pleasures of anticipation with greater warmth, than the propagation of unknown exotic seedlings. The luxuriance of the young plants in the Horticultural Garden prevented their flowering so abundantly as was expected; but age and strength has now given to the Rubus spectabilis a gaiety nearly equal to the dried specimens which have been brought from the north-west coast of America. It is almost certain that by raising seedlings through several generations, care being taken to select the best of each, that we may obtain superior varieties. It flowers best in a strong soil; and produces abundance of suckers.

Bot. Reg. 1424.

LYSIMA'CHIA DU'BIA.

DOUBTFUL LOOSE-STRIFE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Levant.	2 feet.	Aug. Sept.	Biennial.	in 1759.

No. 564.

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Hort. Kew. 2, v. 1, 314.

Caprifolium pubescens.

Dryas octopetala.

Baptisia Australis.

Rubus spectabilis.

CAPRIFO'LIUM PUBES'CENS.

PUBESCENT HONEYSUCKLE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAPRIFOLIACEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
Canada.	10 feet.	May, June.	Twin. shb.	in 1822.

No. 565.

The name, Caprifolium, is compounded from the Latin capra, a goat, and folium, a leaf, The application of the name to the plant is metaphorical —goats are climbers, and so are honeysuckles. The common name, honeysuckle, probably originated in the juvenile practice of sucking the honey from the corolla. Linneus when he established the genus Lonicera, divided it into sections, of which Jussieu made distinct genera. Caprifolium nearly represents Linneus's first section of Lonicera, with flowers sessile, in terminating heads or whorls, and stems twining.

Caprifolium pubescens is a very ornamental species, suitable for training to a wall, up trees, or spreading on a trellis; in either of which situations it may be advantageously displayed. Or if it be more desirable to have it growing independently of support, it may be cut back so as to form a dense bush, and under such treatment it will produce a profusion of flowers.

It will be difficult for some of our readers to forget the delicious perfume of the wild honeysuckle. Climbing to the top of the smoothly cropped

hedge, and thence protruding its many mouths to breathe out its fragrance to every passer by; or as Mason says,

——— " To hang on barren boughs remote,
Her wreaths of flowery perfume,"

it is sure to acquire that favour which our exotic beauty, Caprifolium pubescens, can never claim, for we regret to observe, it is scentless. When we see the casket, we think of the jewels; this, as Capt. Marryat makes Stapleton say, is but "Human nature." It were better, however, to curb our expectations, search out the good that exists, and with Blackmore say,

" How useful all! how all conspire to grace
Th' extended earth, and beautify her face."

The Caprifolium pubescens, like all others of the same genus, may be increased readily by layers. These should be made from the young shoots, and laid down in autumn or early in the spring. The straggling tops should be removed, and by the following autumn they will have taken root, and should then be cut off from the parent plant, and put out where they are intended to remain, or into a nursery to be trained for standards. This may be done by fixing stakes to the stems of each plant, to which the principal stem should be fastened, all the others being cut off; training each to the intended height, when they should be shortened to induce the production of lateral branches, and these be again stopped to prevent their growing too long. By constantly repeating this they may be formed into standards, and made ornamental, independent members of the shrubbery community.

Don's Syst. Bot. v. 2. 577.

DRY'AS OCTOPET'ALA.

EIGHT-PETALED DRYAS.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of	Height.	Flowers in	Duration.	Inhabits
Britain.	4 inches.	June, Aug.	Perennial.	Alp. rocks.

No. 566.

Dryas is a name established by Linneus from the Dryades—fabulous nymphs of the woods. To these sylvan deities the oak, called by the Greeks DRYS, was held as sacred, and the resemblance of the leaves of Dryas to the oak gave occasion for this poetical allusion.

Dryas octopetala is one amongst the prettiest of alpine plants, but is not always cultivated with success, unless it be kept in a pot, and have a little protection in severe winters and shade in the summer. It grows most abundantly on some of the Scotish mountains; and its delicately white flowers, and its evergreen dark shining foliage, render it beautiful in the eye of the botanist; although the Scotish agriculturist would joyfully dispense with its presence. As well as in several parts of Great Britain, it is found in Lapland and Siberia; and on the Jura mountains, at an elevation of five thousand feet above the level of the sea.

We have seen it flourish delightfully in a well-protected shady corner, planted in sandy peat; and by annually laying its outside branches, which root readily, it has become a most luxuriant bed.

Don's Syst. Bot. v. 2, 525.

BAPTI'SIA AUSTRA'LIS.

SOUTHERN BAPTISIA.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N.America.	$2\frac{1}{2}$ feet.	June.	Perennial.	in 1758.

No. 567.

The present generic name, Baptisia, is derived from the Greek BAPTO, to dye. The term may be considered as applying more immediately to the species called tinctoria, which is indigenous to a wide region of North America, extending from James's Bay to the Gulf of Mexico. From the Baptisia tinctoria indigo was produced, previously to the use of the Indigofera tinctoria for that purpose. The Baptisia Australis has been successively considered as belonging to the genera Sophora and Podalyria.

This is a very hardy and desirable plant; its foliage possessing neatness and a softened green hue, and its flowers depth of colour, well calculated to produce effect in the borders. It is requisite that the plant remain two or three years undisturbed, to attain strength, or it will not flower freely; indeed, weak plants frequently do not flower at all.

It will flourish in any common garden soil; but flowers best in that which is rich, light, and deep. Increase may be obtained by division of the roots; or, it may be raised from seeds, which are frequently ripened, and should be sown in the spring.

Don's Syst. Bot. v. 2. 113.

RU'BUS SPECTA'BILIS.

SHOWY BRAMBLE.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

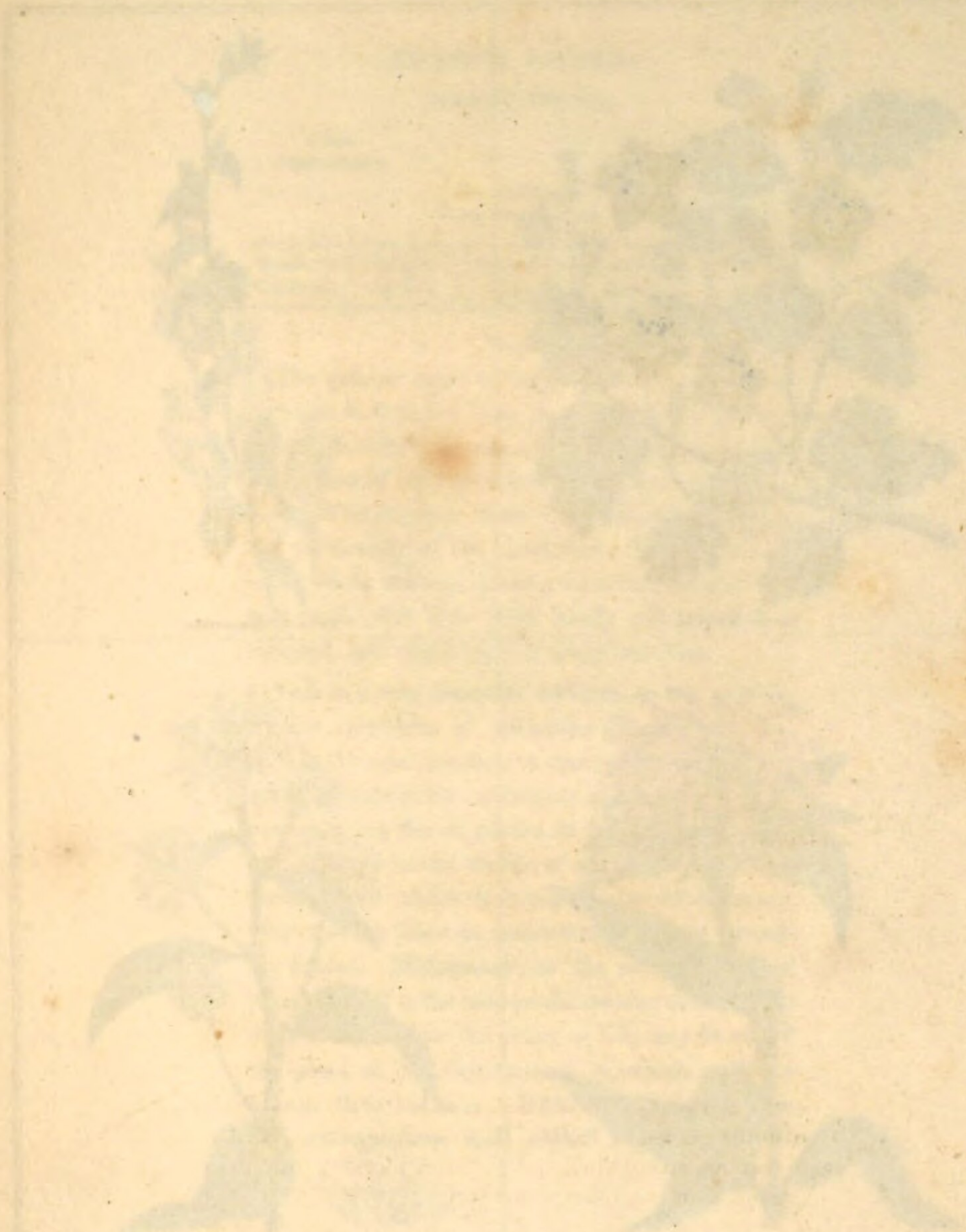
Native of	Height.	Flowers in	Habit.	Introduced
Columbia.	4 feet.	May, June.	Decid.shrub.	in 1827.

No. 568.

Rubus, like Rosa, is derived from the Celtic language; the word RHODD or RHUDD, signifying red, being the root of these, and a numerous offspring of other words.

This species of Rubus was raised in the London Horticultural Society's Garden, from seeds collected in North America. It had previously been figured in Pursh's Flora of that country, and the delineation and description there given excited considerable interest in behalf of the young plants. No objects of equal purity excite the pleasures of anticipation with greater warmth, than the propagation of unknown exotic seedlings. The luxuriance of the young plants in the Horticultural Garden prevented their flowering so abundantly as was expected; but age and strength has now given to the Rubus spectabilis a gaiety nearly equal to the dried specimens which have been brought from the north-west coast of America. It is almost certain that by raising seedlings through several generations, care being taken to select the best of each, that we may obtain superior varieties. It flowers best in a strong soil; and produces abundance of suckers.

Bot. Reg. 1424.



Eutoca viscida.

Linaria Dalmatica.

Monarda fistulosa.

Ceanothus intermedia.

E.D. Smith. del.

S. Watts sculp.

EU'TOCA VIS'CIDA.

CLAMMY EUTOCA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
HYDROPHYLLACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
California.	1½ feet.	July.	Annual.	in 1835.

No. 569.

The generic name of the plant now under consideration is deduced from the Greek EUTOKOS, signifying fruitful. It was adopted on account of the abundance of seed produced by the species first named. Viscida, is a term well applied as regards the peculiarity of the plant, from the clamminess of its whole herbage, arising from innumerable minute hairs with little black heads, with which it is covered, and which yield a viscid secretion.

This is a very desirable addition to our now extensive catalogue of attractive annuals that embellish the open garden; a class of plants which is rising greatly in the estimation of all who desire to possess a gay flower garden in the decline of summer. We say in the decline of summer because annuals chiefly exhibit their beauty after Midsummer, when the sun takes its descending in lieu of ascending course. Midsummer, or the summer solstice, presents itself to the contemplative man as that point of time which, like the prime of life, may be called the pivot of our expectations, on which anxieties change their balance. With what desires, hopes, and anticipations, each vernal ray inspires the

zealous botanist, just as buoyant spirits excite the youthful mind. Pleasurable prospects still continue to arise till that fated day—the longest of the year, to which we have just alluded, like the strongest of man's life—when no longer does each succeeding day outstretch its predecessor in length or strength, but a shadowy reverse commences. When the season of brilliancy has risen to its zenith, or man to the perfection of his nature, then, and not till then arrives a full reflection on declining days. If, however, the cultivator of a flower garden, or of the years of human life, has indulged due thought of a future season; if his young plants be well-trained, his whole garden in good culture, and he has made preparation to meet the icy hand of a winter fast approaching, all is well; he fears not present nor future storms, all seasons alike afford him pleasure. To him indeed we may say, with Southey:

"Sweet are the harmonies of spring,
Sweet is the summer's evening gale,
And sweet the autumnal winds that shake
The many-coloured grove.

Reflection too may love the hour
When Nature, hid in Winter's grave,
No more expands the bursting bud
Or bids the floweret bloom.

For Nature soon in Spring's best charms,
Shall rise reviv'd from Winter's grave,
Expand the bursting bud again
And bid the flower re-bloom."

Seeds of the Eutoca viscida may be sown in the borders, where it will flower abundantly.

Bot. Reg. 1808.

LINA'RIA DALMA'TICA.

DALMATIAN TOAD-FLAX.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARINEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Persia.	3 feet.	June, July.	Perennial.	in 1731.

No. 570.

Linaria is a word merely altered from Linum, from the similarity of the herbage of some of their species. The specific name Dalmatica was used in allusion to the native country of the plant, Dalmatia. Although we date the introduction of this plant to our own country as far back as 1731, it was, we believe lost to British gardens, till the year 1832, when seeds of it were collected in Persia, and presented by Sir Henry Willock to the London Horticultural Society.

It is an upright growing handsome perennial, very ornamental in the flower garden, and its flowers continue long in beauty. The peculiar conformation of the corolla of Linaria and Antirrhinum is very interesting. They formerly constituted one genus only, but the absence of the spur from the corolla of Antirrhinum, and its differently formed capsule have been considered distinctions too prominent to admit of their continued union.

Linaria Dalmatica seems to be perfectly hardy, although hitherto considered a frame plant. It may be increased by division at the roots, or by seeds, which are produced abundantly.

Hort. Kew. 2, v. 4, 16.

MONAR'DA FISTULO'SA.

HOLLOW-STALKED MONARDA.

Class.
DIANDRIA.

Order.
MONOGYNIA.

Natural Order.
LABIATÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America.	3 feet.	June to Aug.	Perennial.	in 1656.

No. 571.

Monarda is a name adopted after that of a Spanish physician. Fistulosus is from the Latin, signifying hollow, and is used in allusion to its hollow flower stems.

Our present species of Monarda is one amongst the original plants described by Linneus, and as a variety in the flower border is not devoid of interest. This, like all the plants of the order Labiatæ, bears strong indications of the presence of an aromatic volatile oil, which gives it an agreeable perfume. This quality is however still more palpable in many other genera of Labiatæ, as Thyme, Lavender, Mint, Marjoram, Savory, Rosemary, Balm of Gilead, and others. Its volatile oil is contained in little reservoirs in the leaves, which it is said by some physiologists, are little bags with orifices. Some of these plants abound in camphor, and it is probable, that this substance is possessed, more or less by the whole order.

In cultivation the Monarda fistulosa requires but little attention, it should, however, be observed that to produce it in luxuriant growth, it should be divided at the least every second year.

Hort. Kew. 2, v. 1, 50.

CEANO'THUS INTERME'DIA.

INTERMEDIATE RED-WOOD.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
RHAMNEÆ.

Native of	Height.	Flowers in	Habit.	Introduced
N. America.	3 feet.	June, July.	Shrub.	in 1812.

No. 572.

The Greek KEANOTHOS was a plant having spines; the name being derived from KEO, to cleave. What this plant of the ancient Greeks was it is now impossible to determine; it is, however, certain that our present genus under the appellation is by no means distinguished for its spines. As well as Red-wood, it is sometimes called Red-root; but neither term applies strictly to all the species.

This species of Ceanothus forms a handsome low shrub, suitable for the shrubbery, or for planting singly on an open lawn. It has somewhat of the character of Ceanothus Americanus, but is much smaller in foliage, and also a much rarer plant.

It happens with this plant as with many others, that, a peculiarity of habit which influences its propagation being little known, it continues scarce, and is incorrectly considered to be difficult of culture. We allude to a property of its seeds, which are ripened in abundance. If these be kept till spring they lose their power of vegetation; they should be sown as soon as ripe, and then it must be remembered they will not vegetate till spring. The plant may be increased also by layers.

Don's Syst. Bot. v. 2, 37.

Sisyrinchium grandiflorum.

Helianthemum marifolium. 5s

Pyrola minor. 5s

Agrostemma Suecica. 5s

SISYRIN'CHIUM GRANDIFLO'RUM.

LARGE-FLOWERED SISYRINCHIUM.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N.America.	6 inches.	May, June.	Perennial.	in 1826.

No. 573.

The name, Sisyrinchium, is literally pigs-snout, see No. 497. It is supposed that the plant on which this name was originally bestowed by the Greeks, is either the Iris Sisyrinchium or Trichonema Bulbocodium.

The Sisyrinchium grandiflorum is a very desirable plant, but one that increases rather slowly. It has a neat appearance, and is unobtrusive in habit; being one of those subjects peculiarly adapted to gardens, where none but rarities are admitted to exhibit their splendour in the party of floral beauties. It is one of Douglas's plants which he sent from the North-west coast of North America.

Our drawing was made in the garden of the Birmingham Botanical and Horticultural society, where the plant was flourishing in a pot of peat, loam, and sand. It requires to be well drained, and may be divided in spring, as soon as the leaves appear.

Amongst the plants belonging to this genus there exist some anomalies in respect to their parts of fructification, which are unfavourable to the views of the Linnean botanist. Whilst their natural affinities would connect them with plants of the class

and order Triandria Monogynia, their stamens, attached to the style, would indicate their connexion with Monadelphia Triandria. Dr. Lindley in the Botanical Register, p. 1283, remarks somewhat forceably on this circumstance; he says "We have here a new instance of what is called the certainty and precision of the Linnean system of Botany, Sisyrinchium appears to us to belong to Monadelphia Triandria, and it is so stationed by some Linnean Botanists; yet others of great authority place it in Triandria Monogynia. We will not pretend to decide between these conflicting opinions; but we really wonder that gentlemen should be still found, with this and hundreds of similar cases staring them in the face, to talk gravely of the peculiar precision and certainty of the sexual system." These discrepancies only show us, as we have before said, that nature cannot be fettered by human systems; we should, however, the more assiduously endeavour to discover her own. It is not surprising that persons who have adopted the Linnean system, and experienced the facility of its application in a sphere of investigation not very extensive, should be attached to its principles. We could not indeed wish that it were otherwise, since the sincerity of friendship would seem to be based on the same foundation.

Some individuals have, in the warmth of their attachment to this arrangement, claimed for it some merits to which perhaps it never has been entitled; whilst on the other hand they have underrated the Natural method as it is called, without giving it the consideration which is requisite to qualify them to decide upon their relative value.

Bot. Reg. 1364.

HELIAN'THEMUM MARIFO'LIUM.

MARUM-LEAVED SUN ROSE.

Class.
POLYANDRIA.

Order.
MONOGYNIA.

Natural Order.
CISTINEÆ.

Native of Britain.	Height. 6 inches.	Flowers in May, June.	Habit. Shrubby.	Inhabits Rocks.

No. 574.

On what favoured blossom the ancients bestowed the name Helianthemum (HELIOS sun, ANTHOS flower) must now remain matter of speculation. Gerard, quoting from Pliny after Democritus, notices an ancient synonyme for Helianthemum and gives the occasion of its application. This name is Heliocaliden, and as many of our readers may not be aware of its origin, or of all the virtues of the plants belonging to this genus, we will copy Gerard's observation for their advantage. He says "The wise men and the kings of Persia do anoint their bodies herewith, boiled with lion's fat, a little saffron, and wine of dates, that they may seem fair and beautiful; and therefore have they called it Heliocaliden, or the beauty of the sun."

The genus Helianthemum was, by Linneus, included under Cistus, a name frequently now applied to these dwarf plants. They have been separated on account of the difference of their seed vessels and other discrepancies.

This is a delightful hardy rock plant, one that in flower is very showy. It may be propagated by cuttings or seeds.

Don's Syst. Bot. v. 1, 309.

PY'ROLA MI'NOR.

SMALLER WINTER-GREEN.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICEÆ.

Native of Britain.	Height. 4 inches.	Flowers in June, July.	Duration. Perennial.	Inhabits Moist Woods.

No. 575.

The name, Pyrola, was borrowed by Linneus from the ancients. It is a diminutive of Pyrus, and was applied to the present genus on account of the existence of some similarity between the leaves of Pyrola and Pyrus or Pear-tree.

This elegant little plant is a native of various European mountains, particularly those of Savoy and Switzerland, as well as Scotland and the north of England. It is however, but rarely met with, either in its secluded habitat, or under the fostering care of the cultivator of alpine gems. The reason of this may be that it is not a bold free grower; or, in the expressive language of the gardener, "that it is rather shy."

It may be cultivated very successfully with other alpines, by being kept in light peat earth, never much exposed to the sun, nor suffered to become very dry. Or in a shady front border it will sometimes grow and increase freely, by throwing out suckers all round the crown of its roots. When thus planted out it should be first well established in a pot, and then turned out with its ball of earth entire.

Don's. Syst. Bot. v. 3, 864.

AGROSTEM'MA SUE'CICA.

SWEDISH AGROSTEMMA.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CARYOPHYLLEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Sweden.	4 inches.	June to Sept.	Perennial.	in 1824.

No. 576.

The name, Agrostemma, is compounded of two Greek words, AGROS, a field; and STEMMA, a crown, whereby it was most probably intended to indicate that the plant to which it was originally applied was one of much beauty—the crown of the field. The ancient inhabitants of the country we now call Sweden were known by the name of Suessiones, hence the specific name Suecica for this Swedish plant.

Jussieu's natural order Caryophylleæ, to which our present pretty plant belongs, possesses one genus which above all others will ever claim for it the attention of the florist, we mean Dianthus, than which few are more attractive. On the other hand it must be confessed that many of its nearest relations are very weeds, we may instance the Arenarias, Chickweeds, &c. This may, however, present us with a moral—Estimate none merely by their natural connexion.

The Agrostemma Suecica, is a pretty plant for a select spot, with other favourites, but it should be grown in peat. It is well suited to pot culture, and may be divided in spring or August.

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